Owner's Operating Service Instruction Manual

10¢

Model No. 136-475A

- ASSEMBLY
- OPERATION
- REPAIR PARTS

34" RIDING MOWER

MTD PRODUCTS INC • 5389 WEST 130th STREET • P. O. BOX 2741 CLEVELAND OHIO 44111
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FORM NO. 770-6153

IMPORTANT

It is suggested that this manual be read in its entirety before attempting to assemble or operate. Keep this manual in a safe place for future reference and for ordering replacement parts.

This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see operating section of this manual for proper fuel and amount.

SAFE OPERATION PRACTICES FOR RIDING VEHICLES

1. Know the controls and how to stop quickly—READ THE OWNER'S MANUAL.
2. Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction.
3. Do not carry passengers. **Keep children and pets a safe distance away.**
4. Clear work area of objects which might be picked up and thrown.
5. Disengage all attachment clutches and shift into neutral before attempting to start engine.
6. Disengage power to attachment(s) and stop engine before leaving operator position.
7. Disengage power to attachment(s) and stop engine before making any repairs or adjustments.
8. Disengage power to attachment(s) when transporting or not in use.
9. Take all possible precautions when leaving vehicle unattended such as disengaging power-take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.
10. Do not stop or start suddenly when going uphill or downhill. Mow up and down face of steep slopes; never across the face.
11. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
12. Stay alert for holes in terrain and other hidden hazards.
13. Use care when pulling loads or using heavy equipment.
    A. Use only approved drawbar hitch points.
    B. Limit loads to those you can safely control.
    C. Do not turn sharply. Use care when backing.
    D. Use counterweight(s) or wheel weights when suggested in owner's manual.
14. Watch out for traffic when crossing or near roadways.
15. When using any attachments never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
16. Handle gasoline with care—it is highly flammable.
    A. Use approved gasoline container.
    B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline.
    C. Open doors if engine is run in garage—exhaust fumes are dangerous. Do not run engine indoors.
17. Keep the vehicle and attachments in good operating condition, and keep safety devices in place. Use guards as instructed in owner's manual.
18. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
19. Never store the equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
20. To reduce fire hazard keep engine free of grass, leaves or excessive grease.
21. The vehicle and attachments should be stopped and inspected for damage after striking a foreign object, and the damage should be repaired before restarting and operating the equipment.
22. Do not change the engine governor settings or overspeed the engine.
23. When using the vehicle with mower, proceed as follows:
    (1) Mow only in daylight or in good artificial light.
    (2) Never make a cutting height adjustment while engine is running if operator must dismount to do so.
    (3) Shut engine off when removing grass catcher and/or unclogging chute.
    (4) Check blade mounting bolts for proper tightness at frequent intervals.
24. Check grass catcher bags frequently for wear or deterioration. Replace with new bags for safety protection.
25. Look behind to make sure the area is clear before placing the transmission in reverse and backing up.

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GRASS CATCHER Model No. 196-015A is available as optional equipment for the mowers shown in this manual.

WARNING

The mower should not be operated without the entire grass catcher or chute deflector in place.

NOTE

Under normal usage bag material is subject to wear, and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations.
For replacement bags, use only factory authorized replacement bag No. 764-0121.

IMPORTANT

After striking a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

The steering wheel and seat, with the necessary hardware, are easily assembled to the machine. On the electric starter models, the battery must be activated and installed as outlined in this section.

TIRE PRESSURE

FOR SHIPPING PURPOSES, THE TIRES ON YOUR UNIT MAY BE OVER-INFLATED. TIRE PRESSURE SHOULD BE REDUCED BEFORE UNIT IS PUT INTO OPERATION. PRESSURE SHOULD BE APPROXIMATELY 15 P.S.I. EQUAL TIRE PRESSURE SHOULD BE MAINTAINED ON ALL TIRES. MAXIMUM TIRE PRESSURE IS 30 P.S.I.

NOTE

Reference to right-hand or left-hand side of machine is from the driver's seat facing forward.

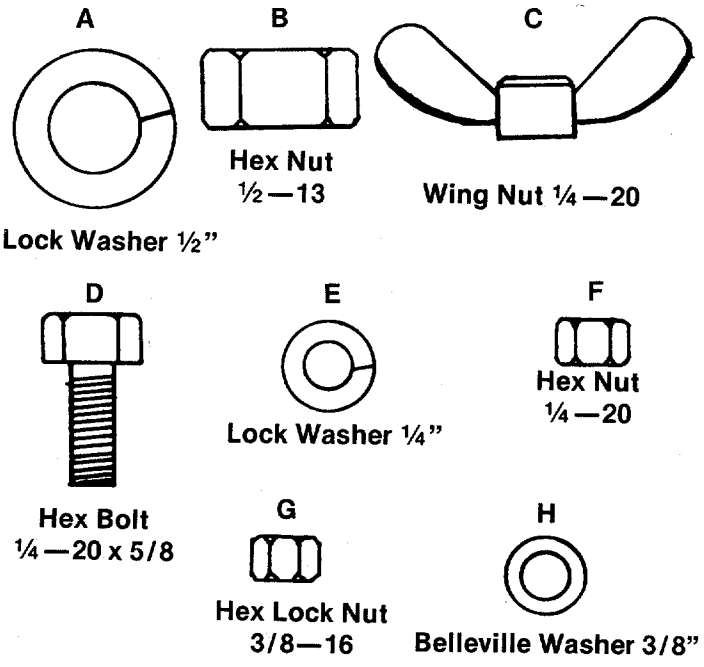


FIGURE 1. HARDWARE SUPPLIED

Step 1. Remove the lawn mower and all parts from the carton. Make certain that all loose parts and literature have been removed before the carton is discarded.

Step 2. Place steering wheel over steering shaft.

Step 3. Secure with Belleville washer and hex nut. See figure 2.

Step 4. Press the cap on the steering wheel by hand. See figure 2.

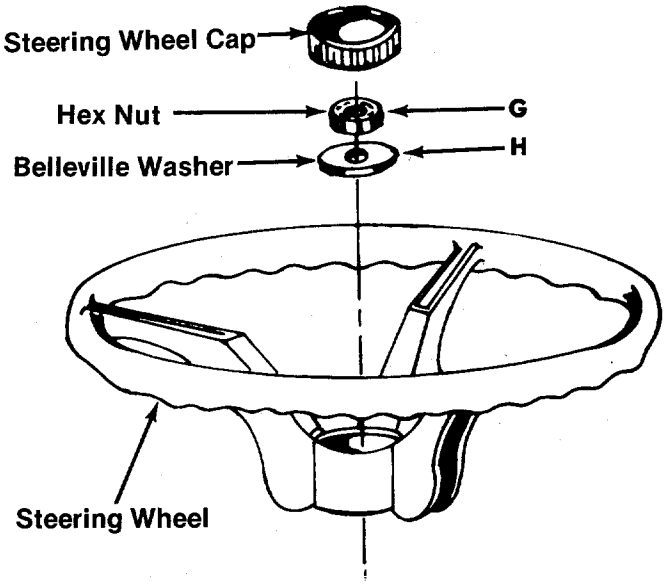


FIGURE 2. STEERING WHEEL ASSEMLY

Step 5. Your molded seat comes with the mounting bolt molded in the seat.

A. Select one of three hole locations on seat spring.

B. Place seat on spring and secure with lockwasher (A) and hex nut (B). See figures 1 and 3.

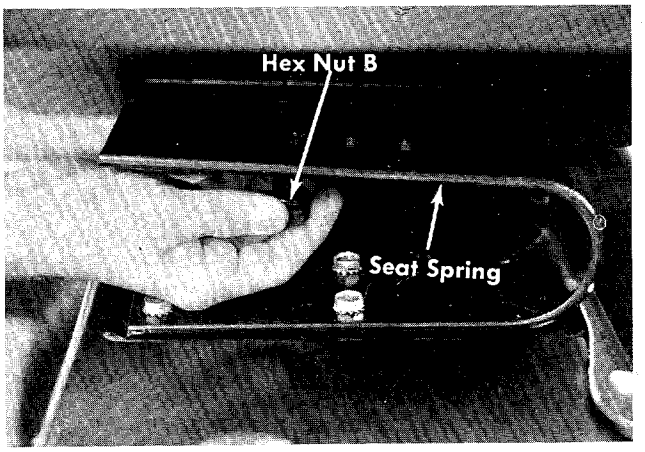


FIGURE 3. SEAT ASSEMBLY

NOTE

Check ALL nuts and bolts for correct tightness.

BATTERY INFORMATION FOR ELECTRIC START MODELS

WARNING

A. Battery acid must be handled with great care as it will blister the skin and damage clothing. It is advisable to wear goggles, rubber gloves, and a protective apron when working with it.

B. Neutralize acid spilled on clothing with dilute ammonia water or a water solution of baking soda. If acid gets on clothes, dilute it with clean water first, then neutralize.

C. If for any reason acid should be spattered in the eyes, wash it out immediately with clean cold water. Seek medical aid if discomfort continues.

D. Since battery acid is corrosive to metals, do not pour into any sink or drain. Rinse empty electrolyte containers and mutilate before discarding.

DANGER

BATTERIES CONTAIN SULFURIC ACID AND MAY CONTAIN EXPLOSIVE GASES (when electrolyte has been added)

A. Keep sparks, flame, cigarettes away.

B. Hydrogen gas is generated during charging and discharging.

C. Ventilate when charging or using in enclosed space.

D. When using a charger—to avoid sparks, NEVER connect or disconnect charger clips to battery while charger is turned on.

E. Always shield eyes, protect skin and clothing when working near batteries.

A. ACTIVATING THE BATTERY

1. Place battery to be filled on bench or workbench. NEVER activate battery in unit. Remove vent caps from all cells.

2. Fill each cell carefully using battery grade 1.250-1.265 specific gravity. Sulfuric acid to be 3/8" above the top of the separators or to the split ring.

3. Allow battery to set for 20 minutes to ½ hour. Add additional acid if necessary to bring it up to the proper level.
4. Replace the vent caps.
5. The battery can now be charged after the 20 minutes setting period. Battery can be SLOW CHARGED (DO NOT FAST CHARGE) at a maximum bench rate of 4-5 amperes until the specific gravity reading is 1.265-1.275. A charging rate in excess of this will buckle and warp the positive plates and perforate the separators. If electrolyte bubbles violently while charging, reduce charging rate until excessive bubbling action subsides, then continue charging until specific gravity is reached.

CAUTION

After battery has been in service, add only approved water. DO NOT ADD ACID.

B. TO INSTALL BATTERY

To install the battery in this unit, refer to page 6.

C. MAINTENANCE

1. Check periodically (every two weeks or before and after charging) to be sure electrolyte level is 9/16" above separator plates. Add only distilled water or good quality drinking water. NEVER add additional acid or other chemicals to battery after initial activation.
2. The battery should be checked with a hydrometer after every 25 hours of operation. If the specific gravity is less than 1.225 remove battery and recharge.
3. Coat the terminals and exposed wiring with a thin coat of grease or petroleum jelly for longer service and protection against electrolyte corrosion.
4. The battery should be kept clean. Any deposits of acid should be neutralized with soda and water. Be careful not to get this solution in the cells.

D. STORAGE

1. Charge battery using normal methods. NEVER store discharged battery as it will not recover.
2. Store in cold, dry place.
3. Recharge battery whenever the specific gravity is less than 1.225 before returning to service or every two months, whichever occurs first.

E. COMMON CAUSES FOR BATTERY FAILURE ARE:

1. Overcharging
2. Undercharging
3. Lack of water
4. Loose hold down and/or corroded connections
5. Excessive loads
6. Battery electrolyte substitutes
7. Freezing of electrolyte

NOTE

THESE FAILURES DO NOT CONSTITUTE WARRANTY.

LIMITED WARRANTY

For ninety (90) days of original retail purchase, the battery carries a limited warranty against faulty material or workmanship by the battey manufacturer.

INSTALLING THE BATTERY

1. Open the hood of the riding mower.
2. Place the battery in the battery case with the terminal to the front. See figure 4.

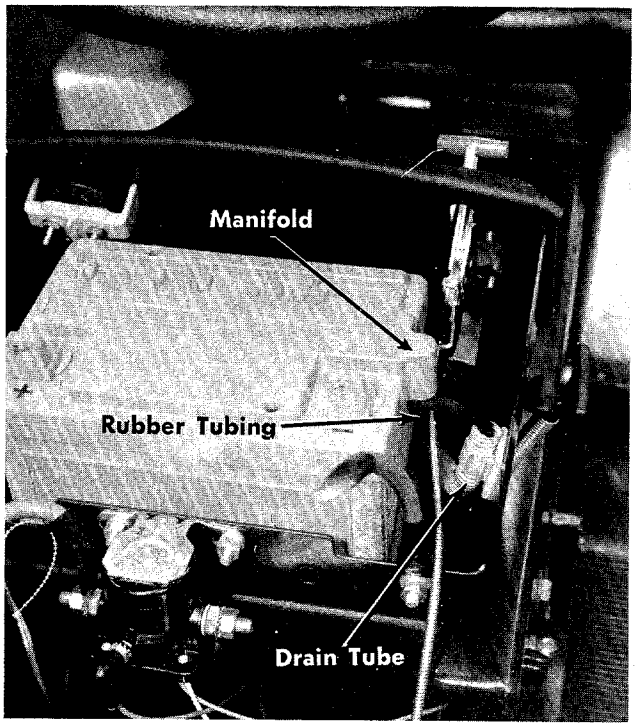


FIGURE 4.

3. Cut the black rubber tubing approximately 4 inches long.

4. Push the rubber tubing into the manifold of the battery and place the other end into the drain tube. See figures 4 and 5.

NOTE

The vented battery allows any gases or liquid from the battery to be carried to the rear of the mower through the drain tube.

5. Hook the hold down rods under the battery case and place the hold down over the manifold of the battery as shown in figure 6.

6. Secure the hold down with the wing nuts.

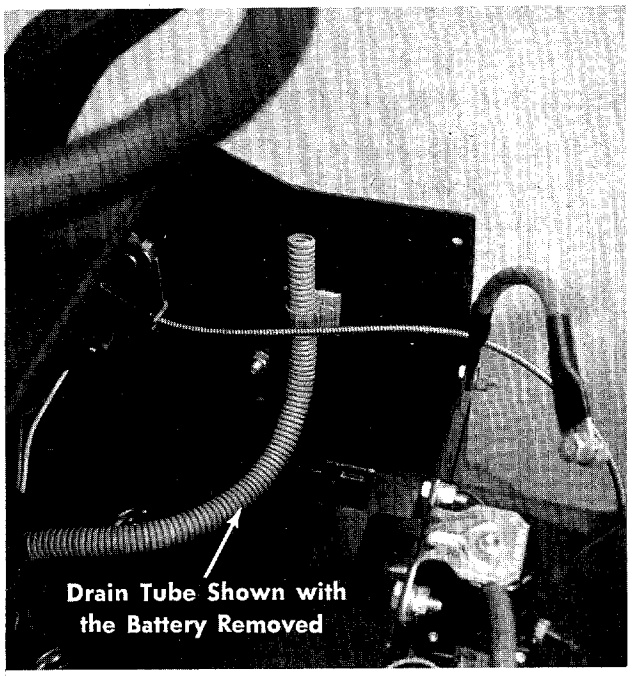


FIGURE 5.

7. Attach the positive cabel (from the starter solenoid) and the small wire (from the ammeter) to the positive battery terminal with the bolt, lockwasher and nut in the assembly pack.
8. Attach the negative cable, grounded, to the negative battery terminal with the bolt, lockwasher and nut in the assembly pack.

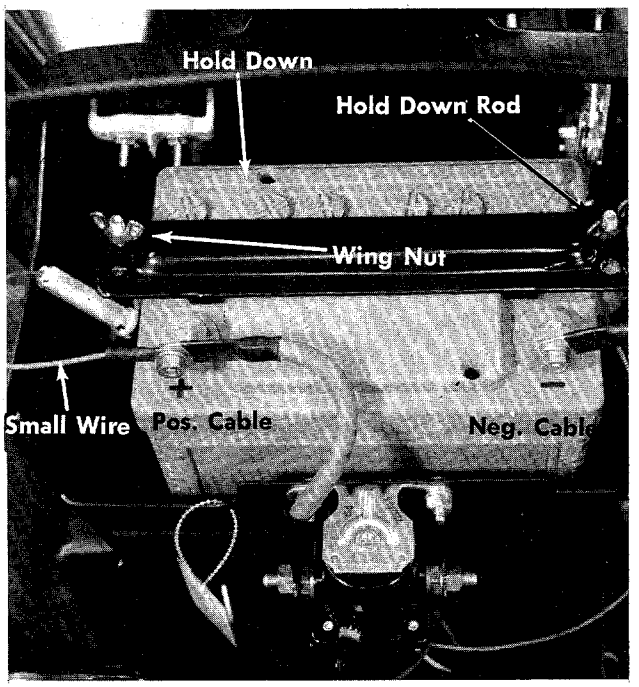


FIGURE 6.

CONTROLS

The controls on both models may be considered as the Drive Control and the Cutting Control as follows:

a. Throttle control. The throttle control is used to regulate the engine speed and choke the engine. The engine should be operated from ¾ to full throttle when operating the cutting deck or snow thrower (optional). See figure 7.

b. Gear Shift Lever. The gear shift lever is used to shift into one of three FORWARD GEARS, NEUTRAL or REVERSE. See figure 7.

c. Brake. The brake pedal is located on the right hand side of the mower and is operated by depressing it with your right foot. See figure 8.

d. Brake Lock. The brake lock is located on the right hand side of the mower. To lock the brake, depress the brake pedal and lift up the lock button. The pedal will stay depressed. To release, depress the pedal. See figure 9.

e. Clutch Pedal. The clutch pedal is used to disengage the drive mechanism. Depressing the clutch pedal at any time will reduce mower speed. If depressed all the way, it will stop the mower. See figure 9.

f. Clutch Lockout. When the clutch pedal is depressed all the way it can be locked by placing the clutch lockout in the START position as shown in figure 9. The clutch locknut must be in this position before the engine will start.

g. Ammeter. The ammeter registers the rate of battery charge or discharge. The ammeter should register on the plus side (+) when the engine is running in the fast position until the battery is completely charged. With a fully charged battery or with the engine idling the ammeter will not show a charge. See figure 7.

h. Light Switch. Pull the light switch out to turn on the lights. The lights will only operate when the engine is running. See figure 7.

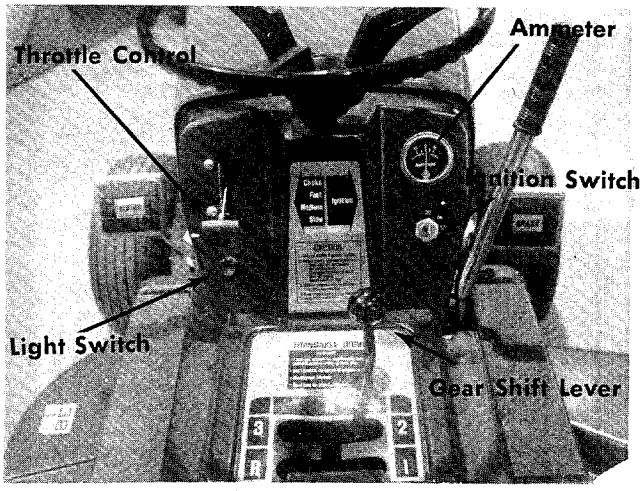


FIGURE 7. CONTROLS

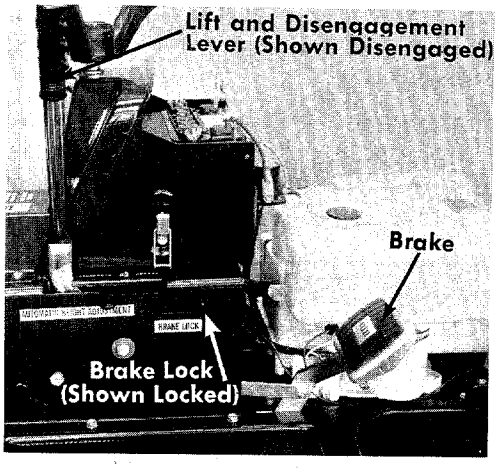


FIGURE 8. RIGHT HAND CONTROLS

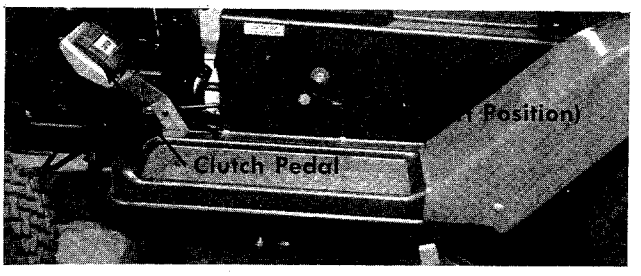


FIGURE 9. LEFT HAND CONTROLS

i. Ignition Switch. The ignition switch is located on the right side of the dashboard.

Electric Start. See figure 7. Turn the key to the START position to start the engine. When the engine is running, let the key return to the ON position. To stop the engine, turn the key to the left to the OFF position and remove it to prevent accidental starting.

NOTE

The engine will not start unless the clutch lockout is in the START position and the lift lever is in the DISENGAGED position.

j. Lift and Disengagement Lever. It is used to raise the cutting deck. Pulling it all the way back and locking it disengages the blades. The engine will not start unless the lift and disengagement lever is in the disengaged position. See figure 8.

k. Cutting Controls. The cutting controls consist of the height of cut stop and the wheel height adjusters.

Height of Cut Stop. See figure 10. Lift the stop and set it at the desired cutting height.

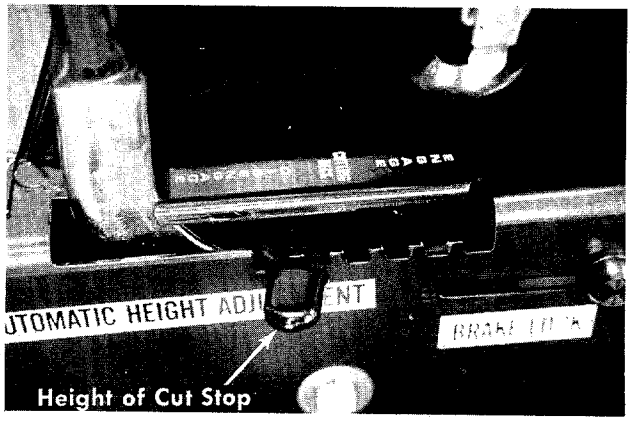


FIGURE 10. HEIGHT OF CUT SETTINGS

Wheel Height Adjuster. See figure 11. Move the lever towards the wheel and set it in the desired cutting height.

The cutting height of the mower can be set in two different ways: FULL FLOAT position where the deck follows the contour of the ground, and the SUSPENDED position where the deck hangs from the frame of the rider. The suspended position is normally used for cutting rough uneven ground.

To set the cutting deck in the full float position, set the wheel height adjusters in the desired cutting height as indicated in figure 11. Set height of cut stop in the 1½ position. See figure 10.

To set the cutting deck in the suspended position, set the height of cut stop in the desired cutting height and then set the deck wheel so they just clear the ground.

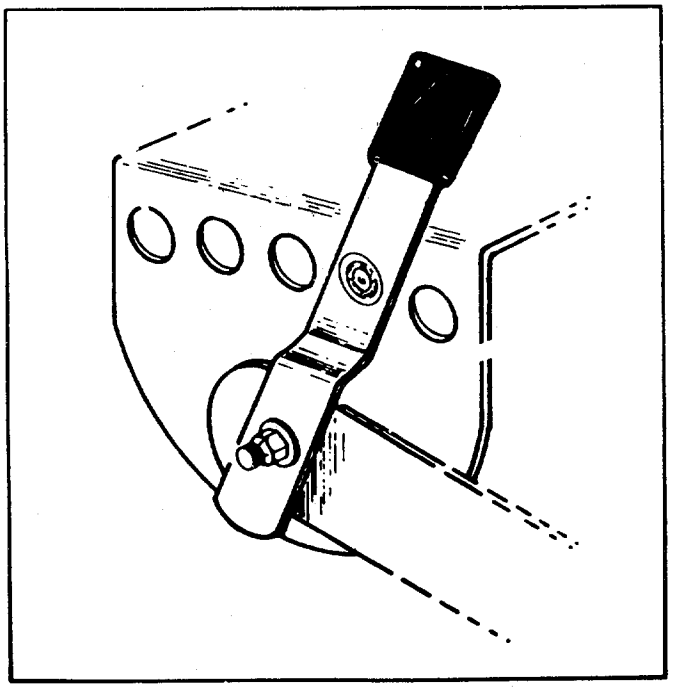


FIGURE 11. WHEEL HEIGHT ADJUSTER

OPERATING INSTRUCTIONS

STARTING THE ENGINE

Be sure to follow the instructions for the oil and gasoline as described in the engine section of this manual.

Step 1. Be sure the fuel shut-off valve is open. See figure 12.

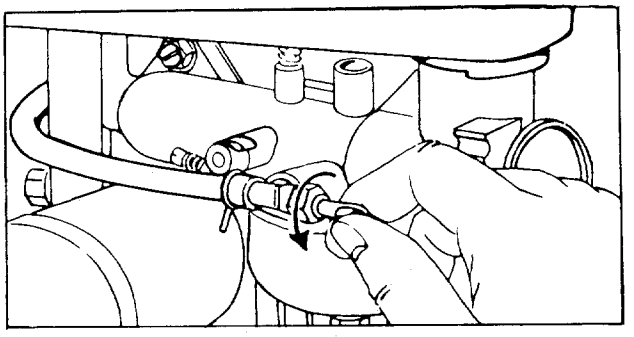


FIGURE 12. FUEL SHUT-OFF VALVE

Step 2. Place the clutch lockout in the START position. See figure 9.

Step 3. Place the lift and disengagement lever in DISENGAGED position. See figure 8.

Step 4. Set the throttle control in the CHOKE position. See figure 7.

NOTE

This unit is equipped with a brake indicator light which is located on the dash panel. Whenever the starter key is on and the brake pedal is depressed, it will light.

CAUTION

This light indicates that the brake is engaged. Operating the unit with the brake engaged will result in rapid brake wear and premature brake failure.

Electric Start

See figures 13 and 14. Turn the ignition key to the START position. When the engine is running, let the key return to the ON position.

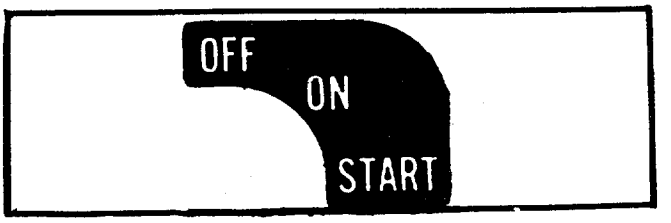


FIGURE 13. STARTER SWITCH

NOTE

A brief break-in period is essential to ensure maximum engine and mower life. This consists of running the engine at half speed for a period of time required to use one tank of gasoline. It is also recommended to change crankcase oil after the first 2 hours of operation.

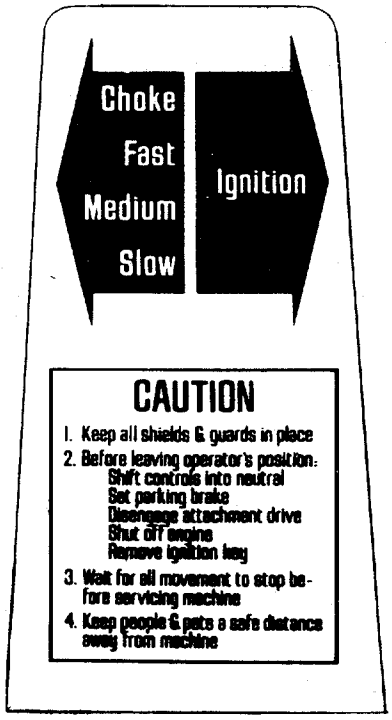


FIGURE 14. DASH PANEL LABEL

CAUTION

Parking brake MUST be disengaged before unit is put into motion.

NOTE

Unit is equipped with separate brake and clutch pedals. To efficiently stop, it is necessary to disengage clutch when applying brakes.

STOPPING THE ENGINE

Turn the ignition key to the left to the OFF position and remove the key to prevent accidental starting.

OPERATING THE MOWER

Step 1. Set the desired cutting height.

Step 2. Start the engine as outlined above.

Step 3. Select gear and shift.

NOTE

DO NOT force the gear shift lever! If the lever cannot be moved from NEUTRAL to one of the drive positions, release the clutch pedal slowly, depress it again, and then move the gear shift lever as required.

Step 4. Once the machine is in motion, remove foot from the pedal. The mower will now move ahead or to the rear, and the use of the steering wheel will provide directional control.

Step 5. The mower is brought to a stop by pressing your right foot against the brake pedal and your left foot against the clutch pedal. The drive belt will be disengaged and the brake will be applied.

CAUTION

Gear changing should be done only after the mower has been brought to a full stop. If the mower is not to be used for a long period, place the gear shift lever in NEUTRAL and stop the engine. DO NOT leave the machine on an incline.

OPERATING THE CUTTER BLADE

The cutting blades may be engaged while the mower is moving or standing still. DO NOT engage the cutting blades abruptly as the sudden belt tension on the pulley may cause the engine to stall.

WARNING

When the blade drive is engaged, keep feet and hands away from the discharge opening and from the blade.

To stop the blades, move the lift and disengagement lever (figure 8) into the DISENGAGED position. This raises the deck and disengages the blades.

NOTE

When the machine is used for other than mowing operations the blade drive should be disengaged.

MAINTENANCE

CRANKCASE OIL

To ensure maximum engine performance, perform the following periodic maintenance:

Oil Check

Check the oil level in the crankcase before each use of the machine and after every five hours of operation. Oil should be kept between the add and full marks on the dipstick.

After the first five hours of operating a new engine, drain the oil (See figure 15) from the crankcase while engine is still hot and refill crankcase with new oil; thereafter change the oil every 25 hours of operation. This procedure ensures for minimum wear of engine parts and provides for virtually trouble-free operation. To change the oil, proceed as follows:

Step 1. With the machine on level ground, place a suitable metal container under the oil drain plug, then remove the drain plug. See figure 15.

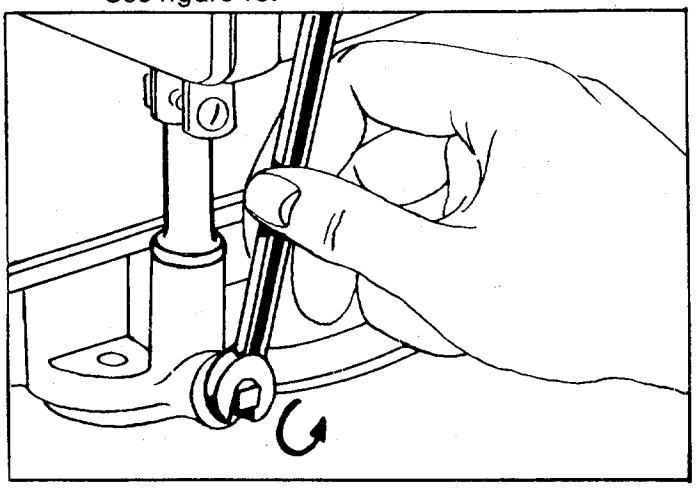


FIGURE 15. OIL DRAIN

Step 2. After the oil has been drained completely from the crankcase, replace the drain plug and tighten.

Step 3. Refill crankcase with 2¼ pints of good quality, type MS, Engine oil into the crankcase. Summer use SAE 30; Winter (Below 40°F.) use SAE 5W-20 or SAE 10W.

LUBRICATION

Lubricate the wheel bearings (2 per wheel) and the upper and lower spindle bearings with SAE 30 oil once a season. See figure 16.

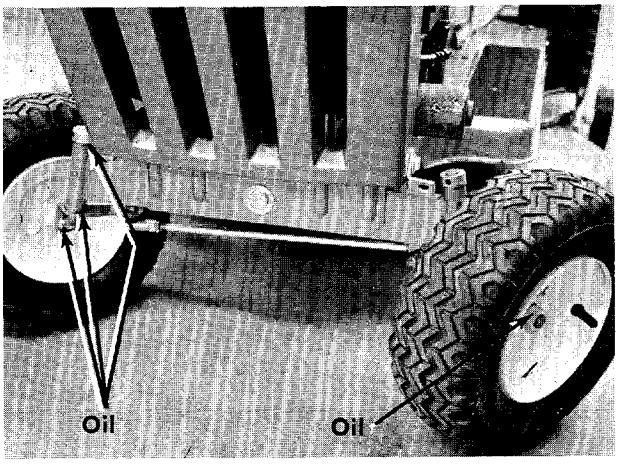


FIGURE 16. WHEEL AND SPINDLE BEARINGS

AIR CLEANER

Under normal operating conditions, the air cleaner, located on top of the carburetor, must be serviced after every ten hours of use. Under extremely dusty operating conditions the air cleaner must be serviced after every hour of operation. Refer to figure 17.

When assembling the air cleaner, make certain the lip of the foam element extends over edge of the air cleaner body. The foam element will form a protective seal.

Step 1. Remove two screws and lift off complete air cleaner assembly.

Step 2. Remove screen and spacers from foam element.

Step 3. Remove foam element from air cleaner body.

Step 4. a. Wash foam element in kerosene or liquid detergent and water to remove dirt.

b. Wrap foam in cloth and squeeze dry.

c. Saturate foam in SAE 30 engine oil, then squeeze out excess oil.

d. Assemble parts, fasten to carburetor with screw.

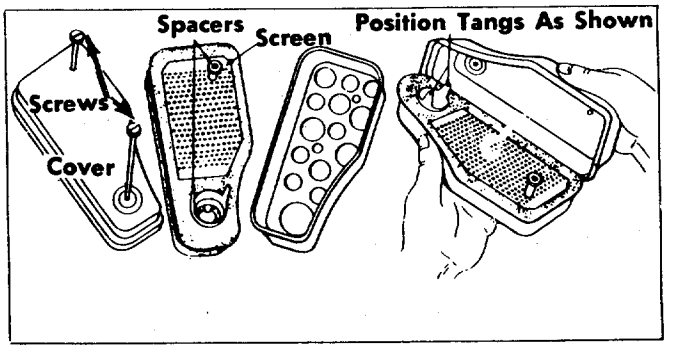


FIGURE 17. AIR CLEANER

CLEANING ENGINE AND BLADE HOUSING

Any fuel or oil spilled on the machine should be wiped off promptly. Grass, leaves, and other dirt must not be left to accumulate around the cooling fins of the engine or on any part of the machine.

Clean the underside of the blade housing after each mowing.

BELTS

Check that belts are free of oil or dirt. Wipe the belt periodically with a clean rag.

NOTE

Belt tension is automatically maintained by the spring on the variable speed bracket on the drive belts and the belt tension on the deck belt is maintained by the two deck springs.

SPARK PLUG

The spark plug gap should be cleaned and reset to a 0.030-inch clearance every 25 hours of engine operation. (See figure 18.) Spark plug replacement is recommended at the start of each mowing season; check engine parts list for correct plug type.

NOTE

Whenever the spark plug is removed for cleaning, it is advisable to replace the spark plug gasket with a new gasket.

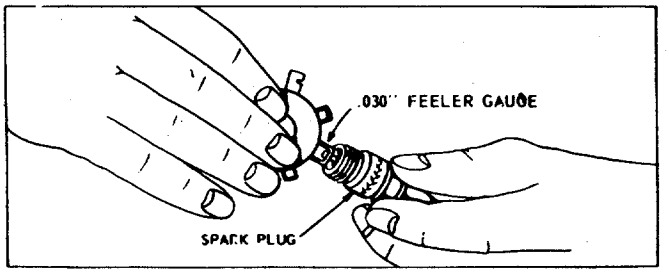


FIGURE 18. SPARK PLUG CLEARANCE

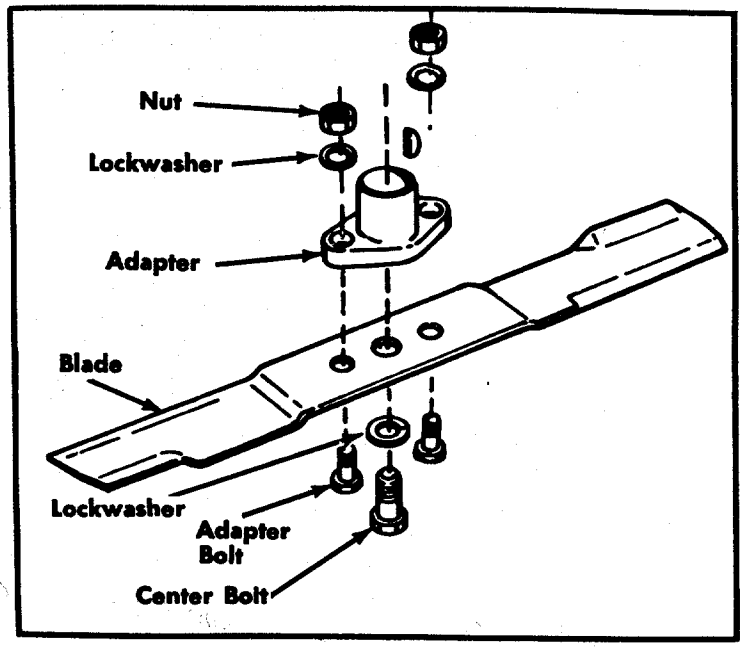


FIGURE 19. BLADE REMOVAL

REPLACING BLADE

WARNING

Before beginning work on the cutter blade, remove the spark plug from the cylinder.

The adapter can be removed from the blade by removing the two adapter bolts, lockwashers and nuts.

Removing and Sharpening Blades. Remove the center bolt and lockwasher. (See figure 19.) Pull the blade and blade adapter from the blade spindle.

WHEEL ADJUSTMENT

The caster (forward slant of the king pin) and the camber (tilt of the wheels out at the top) requires no adjustment. Automotive steering principals have been used to determine the caster and camber on the rider. The front wheels should toe-in 1/8 inch.

To adjust the toe-in follow these steps.

Step 1. Remove the elastic locknut and drop the tie rod end from the wheel bracket. (See figure 20.)

Step 2. Loosen the hex jam nut on the rod.

Step 3. Adjust the tie rod assembly for correct toe-in.

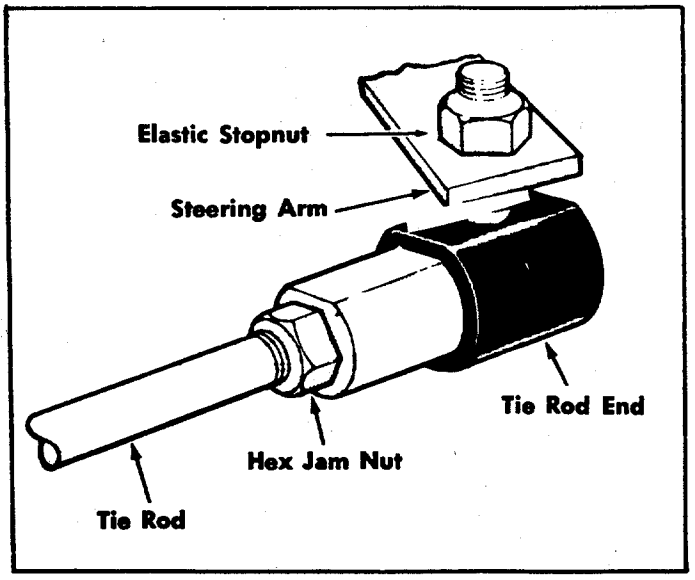


FIGURE 20. TIE ROD END

ADJUSTMENT

Dimension "B" should be approximately 1/8" less than dimension "A".

A.) To increase dimension "B", screw the rod into tie rod end.

B.) To decrease dimension "B", unscrew tie rod from tie rod end.

C.) Reassemble the rod. Check dimensions. Readjust if necessary.

NOTE

To insure safe operation of your unit ALL nuts and bolts must be checked periodically for correct tightness.

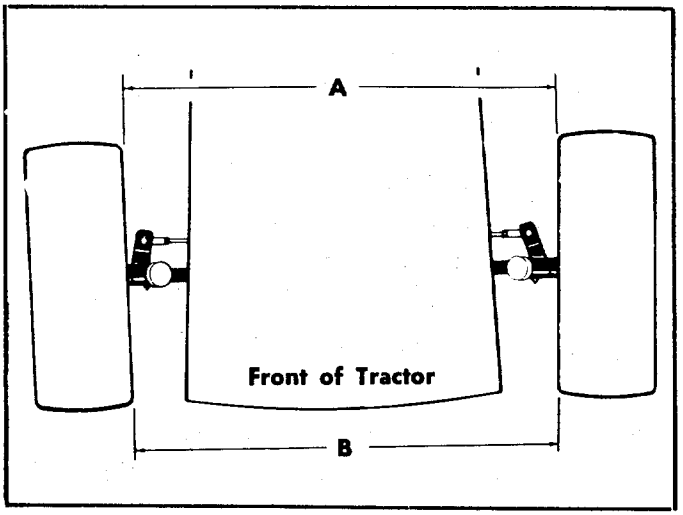


FIGURE 21. TOE-IN DIAGRAM

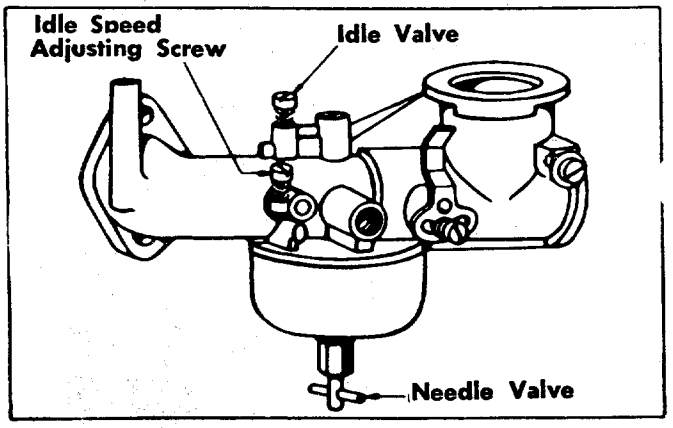


FIGURE 22. CARBURETOR ADJUSTMENT

ADJUSTING CARBURETOR CHOKE

Proper choke operation is dependent upon proper adjustment of remote controls on the powered equipment.

To Check Operation of Choke-A-Matic Controls:

Move control lever to CHOKE position. (See figure 7.) The carburetor choke should be closed.

NOTE

The air cleaner can be removed to check the operation of the choke.

To Adjust:

Place control lever on equipment in FAST (high speed) position. Loosen control casing clamp screw B. Move control casing A and wire until lever D touches choke operating link at C. Tighten casing clamp screw B. See figure 23.

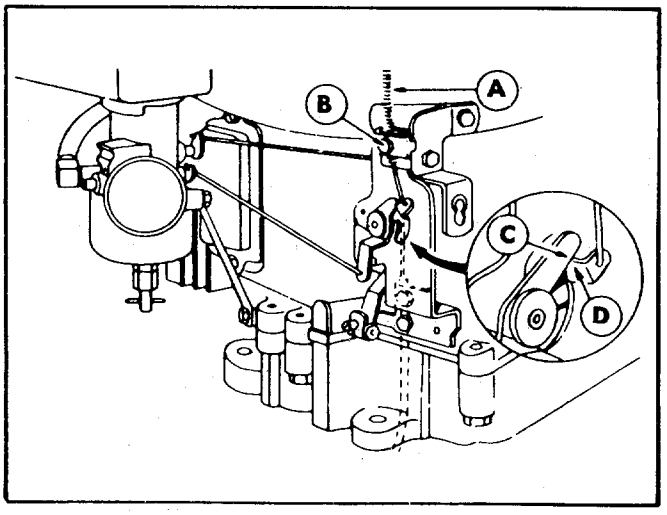


FIGURE 23. CHOKE ADJUSTMENT

BRAKE ADJUSTMENT

1. Move brake pedal forward by hand until pressure or resistance is noted. This is the point where the brake pedal spring begins to stretch.
2. If adjustment is correct, parking brake lock will have moved approximately ¼". See figure 24.

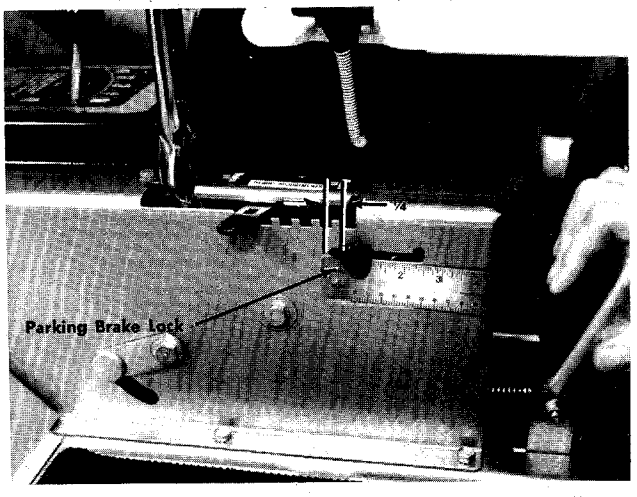


FIGURE 24. PARKING BRAKE LOCK

3. If adjustment is incorrect, tighten or loosen brake adjusting nut until correct dimension is obtained. (See figure 25.) Over tightening will reduce effective braking action. Lock brake adjustment with brake adjustment locknut. Periodic adjustment is necessary to maintain effective brake operation.

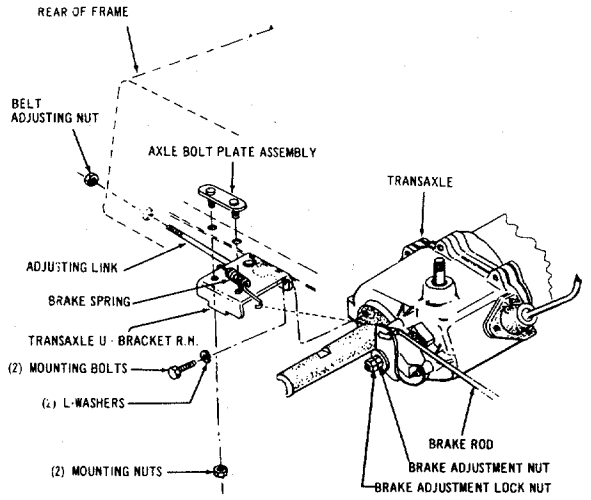


FIGURE 25. BRAKE ADJUSTMENT NUT

PREPARING FOR BELT REMOVAL

1. To prevent gasoline from leaking from the engine, remove the fuel tank cap, place a piece of thin plastic over the neck of the fuel tank and screw on the cap.

2. Disconnect the spark plug wire and ground it against the engine.

NOTE

If the unit is equipped with a battery, continue with step 3.

3. Remove the battery to prevent acid from leaking.

WARNING

Disconnect the negative terminal first and connect last when installing the battery.

MOWING UNIT BELT REPLACEMENT

Step 1. Place the lift lever in the disengaged position. See figure 8.

Step 2. Remove the belt keeper and large bolt on the engine pulley. See figure 26.

Step 3. Unhook the belt from the engine pulley. See figure 27.

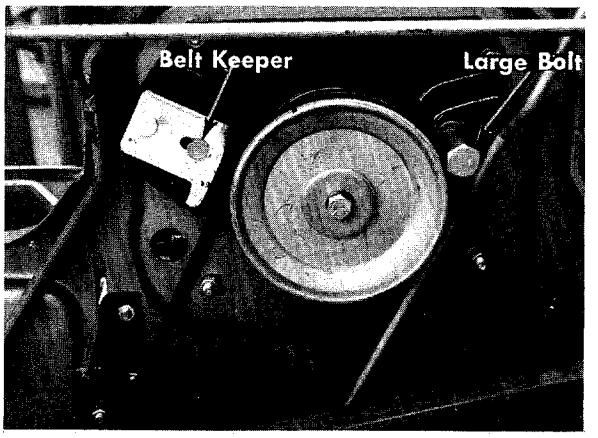


FIGURE 26. BELT KEEPER

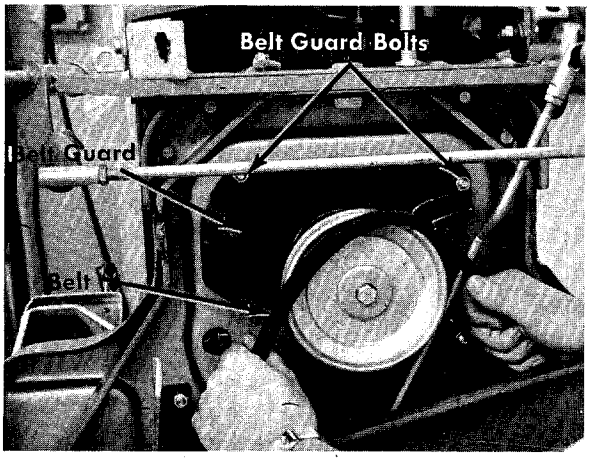


FIGURE 27. REMOVING MOWER BELT

Step 4. Place the lift lever in the engaged position. See figure 8.

Step 5. Unhook the tension springs on both sides of the deck. See figure 28.

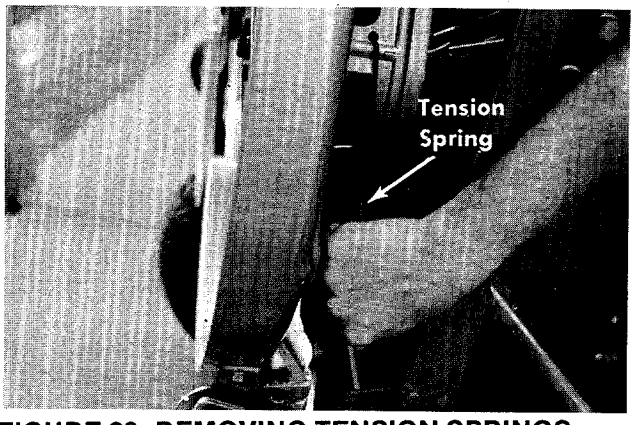


FIGURE 28. REMOVING TENSION SPRINGS

Step 6. Remove the front four deck links from the cutting deck. See figure 29.

Step 7. Remove the belt guards from both deck pulleys. See figure 29.

Step 8. Remove and replace the belt and reassemble.

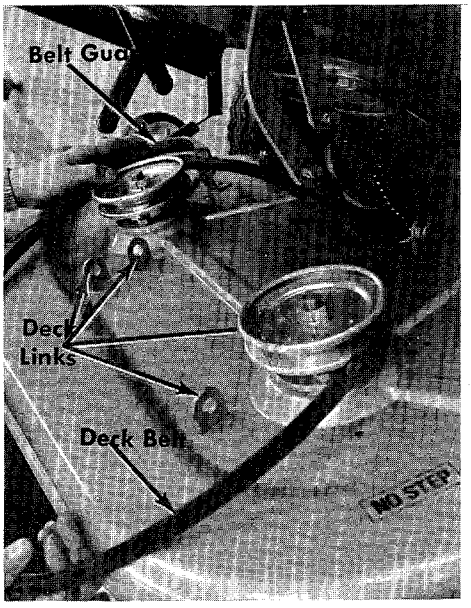


FIGURE 29. DECK LINKS

TRANSMISSION BELTS REMOVAL

Step 1. Place the lift lever in the disengaged position. See figure 8.

Step 2. Remove the belt keeper and large bolt on the engine pulley. See figure 26.

Step 3. Unhook the belt from the engine pulley. See figure 27.

Step 4. Place the lift lever in the engaged position. See figure 8.

Step 5. Unhook the tension springs on both sides of the deck. See figure 28.

Step 6. Remove the front four deck links from the cutting deck. See figure 29.

Step 7. Tip the deck down as shown in figure 30.

NOTE

Leave the belt attached to the deck pulleys unless you want to replace it.

NOTE

By working between the frame and the deck, it is possible to remove and replace the deck belt without removing the deck, however, the working space is limited.

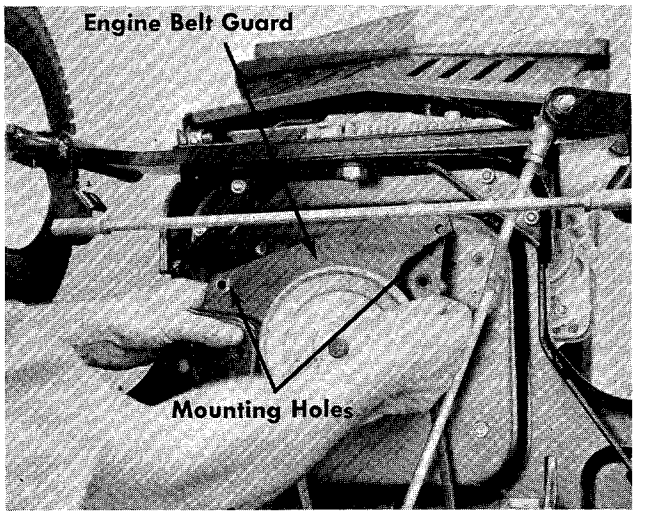


FIGURE 30. BELT GUARD REMOVAL

Step 9. **Removing the transmission belt.** See figure 29.

a. Remove the entire belt guard from the engine pulley by removing the two front engine bolts. See figure 28.

b. Remove the transmission pulley by removing the hex nut and washer. See figure 29.

c. Remove the bolt and nut from the steering rack and remove the belt.

d. Reassemble in reverse order with the new belt.

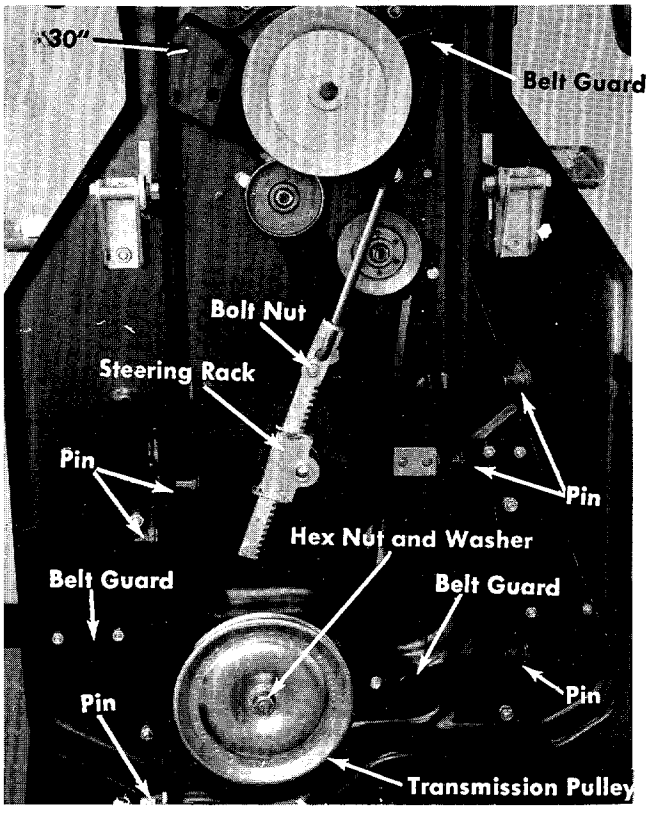
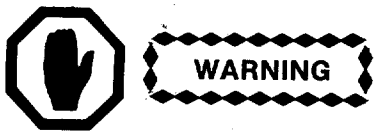


FIGURE 31. BOTTOM VIEW

OFF-SEASON STORAGE

If the machine is to be inoperative for a period longer than 30 days, the following precautions are recommended:

Step 1. Working outdoors, drain all fuel from the fuel tank. Use a clean dry cloth to absorb the small amount of fuel remaining in the tank, then run the engine until all fuel in carburetor is exhausted.



Do not drain fuel while smoking, or if near an open fire.

Step 2. Drain all the oil from the crankcase (this should be done after the engine has been operated and is still warm) and refill the crankcase with clean new oil.

Step 3. Disconnect the spark plug wire and remove the spark plug from the cylinder. Pour about six drops of engine oil into the cylinder, and then pull the recoil starter several times to spread the oil on the cylinder wall. Replace the spark plug, but DO NOT connect the wire.

Step 4. Clean the engine and the entire mower thoroughly.

Step 5. Lubricate all lubrication points indicated in figure 15; then wipe the entire machine with an oiled rag in order to protect the surfaces.

TROUBLE SHOOTING CHART

TROUBLE	LOOK FOR	REMEDY
Engine fails to start.	Safety System	A. Check for a blown fuse in the wire leading from the positive terminal of the battery. B. Before checking the safety system further, be sure the clutch control and the blade control are disengaged; only the starting system is being checked. Therefore remove the spark plug lead and ground it to prevent the engine from starting. C. Attach a wire (minimum 18 gauge) to the positive terminal of the battery and touch the other end to the small terminal (coil primary) of the solenoid. If the engine cranks, the problem is in the safety system. D. Check for continuity from the battery to the solenoid. NOTE: The positive terminal of the battery should have a large cable (#8 guage) and a small wire (#18 gauge) attached to it. E. Check all wires and cable for tightness. F. Use a #8 gauge wire and jump between the two large terminals of the solenoid. If the unit starts, replace the solenoid. G. If the unit fails to start after following the above procedure the problem is probably in the starting motor of the engine.
	Blocked fuel line or empty gas tank.	Clean fuel line; check fuel supply. Also check fuel shut-off valve.
	Defective spark plug.	Spark plug lead wire disconnected. Faulty spark plug—spark should jump gap between control electrode and side electrode. If spark does not jump, replace spark plug. NOTE: Use insulated pliers to hold the spark plug wire.
	Throttle setting.	Throttle control lever not in the starting position.
	Loose connections	Spark plug wire loose.
Hard starting or loss of power.	Dirty air cleaner.	Remove air cleaner and clean as outlined on page 17 of this manual.
	Carburetor improperly adjusted.	Review paragraph **Carburetor Adjustment.**
Excessive vibration.	Bent or damaged blade spindle.	Stop engine immediately; tighten all bolts and make all necessary repairs. If vibration continues, have the unit serviced by a competent repairman.
Unit fails to discharge grass.	Discharge chute clogged.	Clean discharge chute and inside of deck.
	Foreign object lodged in deck.	Remove object from deck. See CAUTION following step 1 in paragraph **Operation.**
Engine overheats.	Obstructions in air passages.	Remove any obstruction from air passages in shroud.
	Grass and dirt in engine shroud.	Clean cooling fins.
	Oil level.	Fill crankcase to proper oil level.

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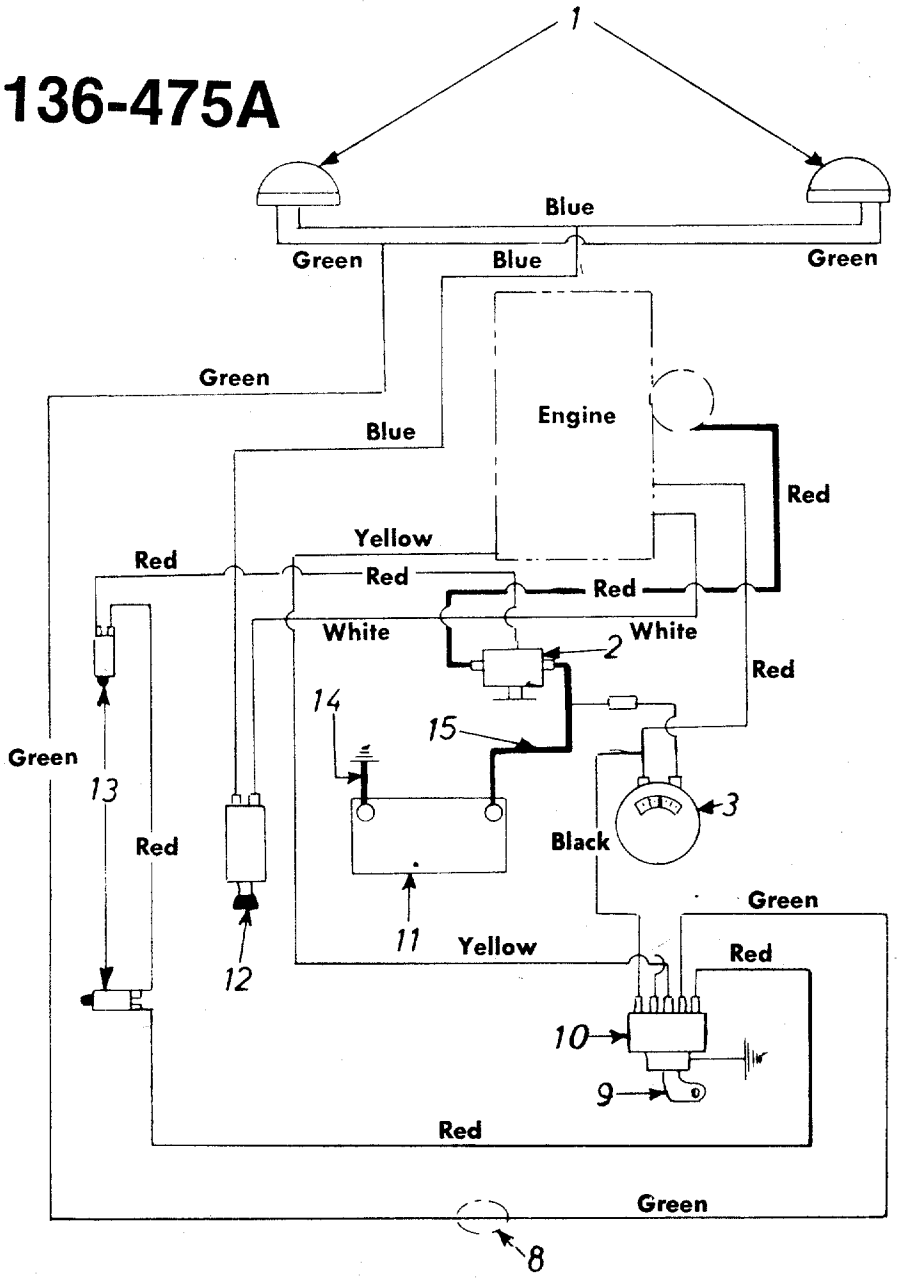
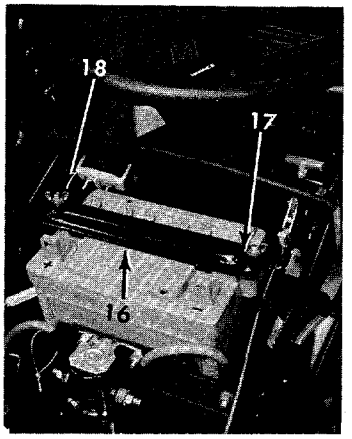


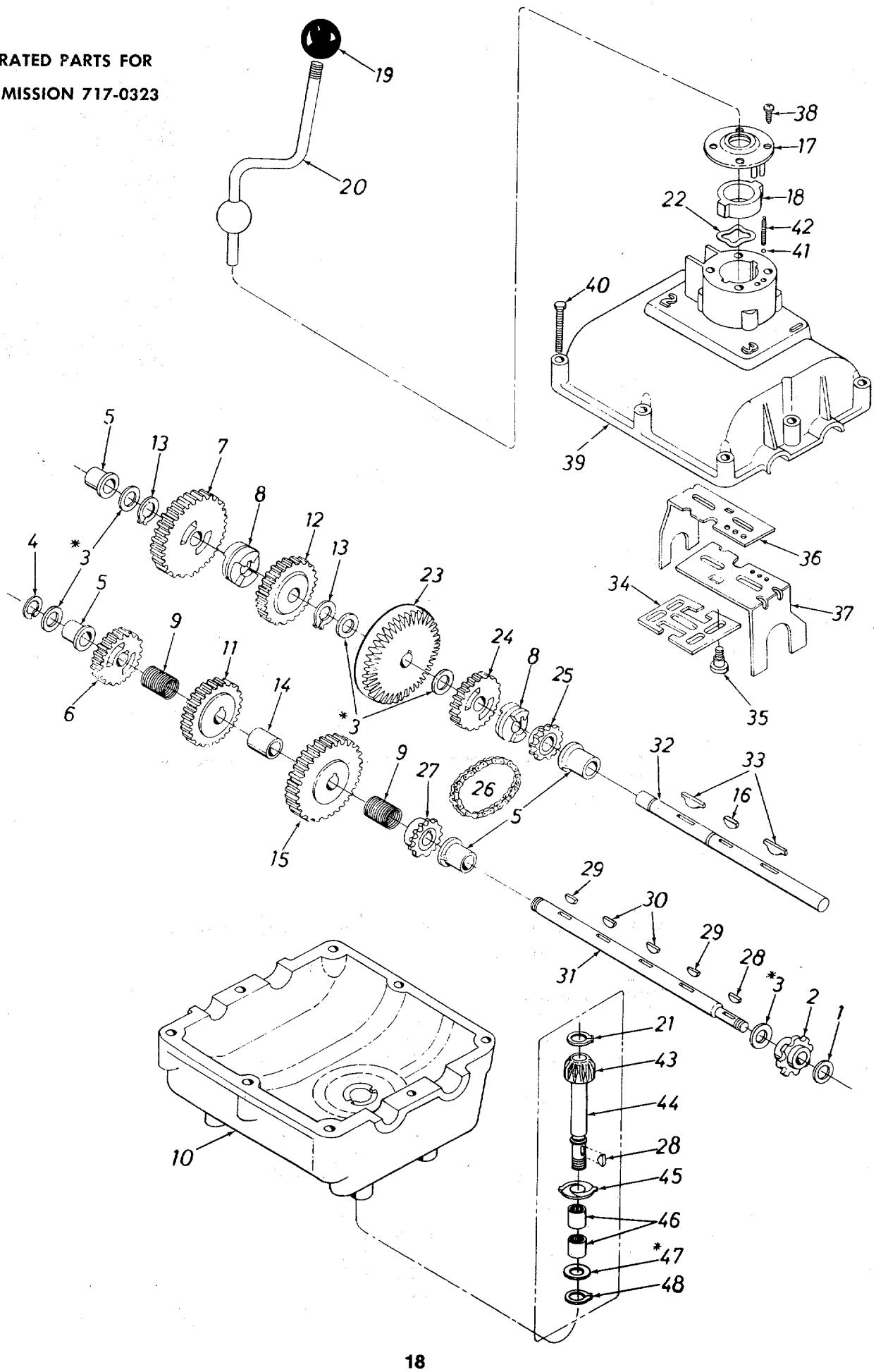


PARTS LIST FOR ELECTRICAL SCHEMATIC 136-475A

Ref. No.	Part No.	Color Code	Description
1	725-0222		Headlights
2	725-0270		Solenoid
3	725-0119		Ammeter
8	725-0364		Wiring Harness
9	725-0201		Ignition Key
10	725-0267		Ignition Switch
11	725-0455		Battery
12	725-0202		Headlight Switch
13	725-0268		Safety Switch—Black with Brkt.
14	725-0121		Electric Wire
15	725-0122		Electric Wire
16	12614		Battery Hold Down
17	711-0222		Hold Down Rods
18	712-0113		Wing Nuts

ILLUSTRATED PARTS FOR

TRANSMISSION 717-0323



PARTS LIST FOR TRANSMISSION MODEL NO. 717-0323

Ref. No.	Part No.	No. Req'd	DESCRIPTION
1	FF-1300	1	Ring, Retaining
2	FF-1129	1	Sprocket, 8T
3	FF-1068	*	Washer, Plain (.040)
3	FF-1082	*	Washer, Plain (.031)
3	FF-1145	*	Washer, Plain (.060)
3	FF-1358	*	Washer, Plain (.050)
3	FF-1423	*	Washer, Plain (.025)
3	FF-1424	*	Washer, Plain (.035)
3	FF-1425	*	Washer, Plain (.045)
3	FF-1441	*	Washer, Plain (.020)
4	FF-1106	1	Ring, Retaining
5	FF-1101	4	Bearing, Flange
6	FF-1072	1	Gear, Spur, 20T.
7	FF-1444	1	Gear, Spur, 30T.
8	FF-1083	2	Collar, Clutch
9	FF-1095	2	Spring, Compression
10	FF-1064-A	1	Housing, Lower
11	FF-1076	1	Gear, Spur, 25T.
12	FF-1075	1	Gear, Spur, 25T.
13	FF-1099	2	Ring, Retaining
14	FF-1325	1	Spacer
15	FF-1078	1	Gear, Spur, 30T.
16	FF-1374	1	Key, Wdr., No. 9 Alloy
17	FF-1670	1	Cover, Nylon
18	FF-1091	1	Insert, Nylon
19	FF-1318	1	Knob, Shift
20	FF-2683	1	Assembly, Lever, Shift
21	FF-1100	1	Ring, Retaining
22	FF-1096	1	Washer, Wave
23	FF-1085	1	Gear, Bevel, 42T.
24	FF-1071	1	Gear, Spur, 20T.
25	FF-1087	1	Sprocket, 12T., Special
26	FF-1090	1	Chain
27	FF-1104	1	Sprocket, 12T., Special
28	FF-1371	2	Key, Wdrf., No. 4 Alloy
29	FF-1369	2	Key, Wdr., No. 3 Alloy
30	FF-1375	2	Key, Wdrf., No. 61 Alloy
31	FF-1094	1	Shaft, Output
32	FF-1443	1	Shaft, Drive
33	FF-1086	2	Key, Hi-Pro, Special
34	FF-1074	1	Plate, Lock-out
35	FF-1073	4	Screw, Shoulder
36	FF-1657	1	Fork, Shifter, R.H.
37	FF-1070	1	Fork, Shifter, L.H.
38	FF-1357	4	Screw, No. 10-24 x 1/2
39	FF-1065-J	1	Housing, Upper
40	FF-1360	8	Bolt, Hx. Hd., 1/4 – 20 x 1-5/16
41	FF-1037	2	Ball, Detent
42	FF-1475	2	Spring, Detent
43	FF-1105	1	Pinion, Bevel, 16T.
44	FF-1747	1	Shaft, Input
45	FF-1499	1	Washer, Thrust
46	FF-1102	2	Bearing, Needle
47	FF-1430	*	Washer, Plain (.040)
47	FF-1431	*	Washer, Plain (.050)
47	FF-1760	*	Washer, Plain (.015)
48	FF-1491	1	Ring, Retaining

* Indicates used in various combinations to maintain proper clearances.

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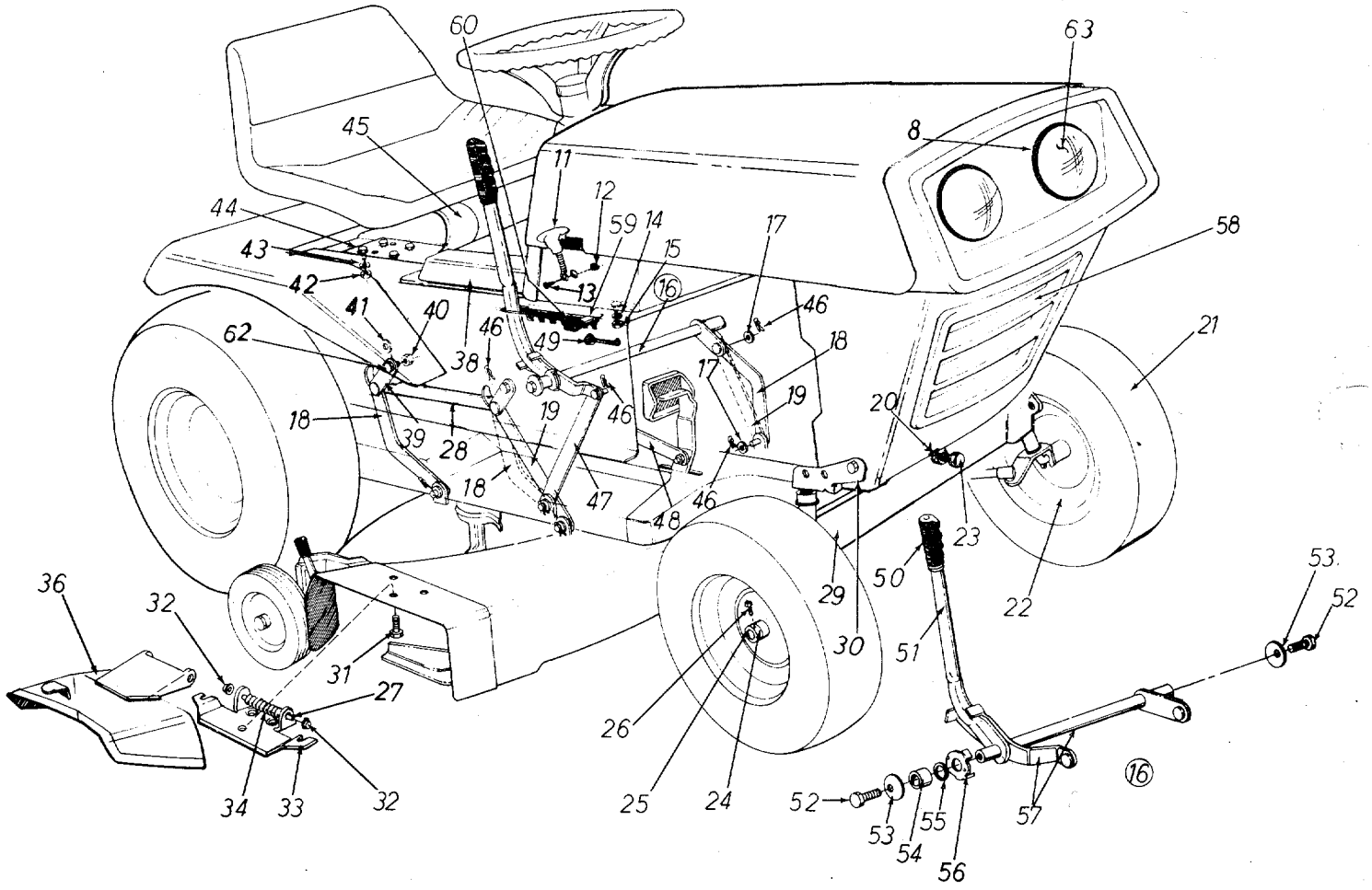
IF YOU WRITE TO US ABOUT THIS ARTICLE OR IF YOU ORDER REPLACEMENT PARTS ALWAYS MENTION THIS MODEL & SERIAL NO

MODEL



RIGHT HAND VIEW

PARTS LIST FOR MODEL 136-475A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
8	735-0156		Head Lamp—Door Mounting	
11	723-0296		Hood Lock Ass'y.	
12	712-0287		Hex Nut ¼-20 Thd.*	
13	710-0289		Hex Hd. Cap Scr. ¼-20 x .50" Lg.*	
14	736-0119		Spring Lockwasher 5/16" Scr.*	
15	712-0267		Hex Nut 5/16-18 Thd.*	
16	—		See Breakdown	
17	736-0192		Flat Washer .531 I.D. x .93 O.D.	
18	10349	—378	Deck Link Ass'y.	
19	10346	—378	Lockout Link Ass'y.	
20	712-0923		Hex Center Locknut 5/8-18 Thd.	
21	734-0494		Front Wheel Ass'y.—Comp. 13 x 5.00	
	734-0495		Front Wheel Tire Only	
22	734-0520		Front Wheel Rim Ass'y. Only	
23	710-0622		Hex Hd. Cap Scr. 5/8-18 x 1.62" Lg.	
24	711-0169		Collar 5/8" I.D.	
25	748-0184		Front Wheel Bearing	
26	710-0494		Sq. Hd. Set Scr. 5/16-18 x .38 Cup	
27	711-0571		Pivot Pin	
28	09735	—378	Connecting Rod 3/16 x 1.00 x 12.5" Lg.	
29	12406	—378	Pivot Bar Assembly	
30	12411	—378	Front Pivot Bracket	
31	710-0195		Hex Hd. Cap Scr. ¼-28 x .62" Lg.*	
32	726-0106		Push On Flange Palnut	
33	11399	—378	Adapter Plate Ass'y.	
34	732-0261		Torsion Spring	
35	11633	—378	Chute Cover Ass'y.—Comp.	
36	11574	—378	Chute Cover Ass'y.	
38	11842	—378	Upper Frame Cover	
39	09721	—378	Pivot Link Ass'y.	
40	712-0267		Hex Nut 5/16-18 Thd.*	
41	736-0264		Flat Washer .344 I.D. x .62 O.D.	
42	712-0267		Hex Nut 5/16-18 Thd.*	
43	736-0119		Spring Lockwasher 5/16" Scr.*	
44	710-0198		Hex Hd. Sems Scr. 5/16-18 x .75" Lg.*	
45	732-0256		Seat Spring 3.25" High	
46	714-0101		Internal Cotter Pin ½" Dia.	
47	10904	—378	Deck Link Ass'y.	
48	310-11056		Parking Brake—Lever Ass'y.—R.H.	
49	726-0121		Push Cap ¼" Dia.—Black	
50	720-0157		Grip	
51	11030	—378	Lift Handle—R.H.	
52	710-0201		Hex Hd. Cap Scr. 3/8-16 x .62" Lg.*	
53	736-0219		Belleville Washer .400 I.D. x 1.13 O.D.	
54	748-0201		Spacer .635 I.D. x .88 O.D. x .57 RUBBER	
55	~~736-0208~~ 735-180		~~Wave~~ Washer ~~.660 I.D. x .82 O.D. x .029~~	
56	11029		Handle Pivot Bracket	
57	11032		Lift Handle Bracket Ass'y.	
58	731-0208		Grille Insert	
59	11027		Handle Stop Bracket Ass'y.	
60	11249		Knob	
61	736-0156		Flat Washer	
62	730-0140		Shd. Bolt .473 x .180	
63	725-0222		Headlights	

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

(378—Saturn Blue)
When ordering parts, if color or finish is important use the appropriate color code shown above (e.g. Saturn Blue Finish—11852 (378).).

The engine is not under warranty by the mower manufacturer. If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines — Gasoline."

WHEEL CHART

FRONT WHEEL

PART NO.	COLOR CODE	DESCRIPTION	NEW PART
734-0494		Wheel Ass'y.—Comp.	
734-0520		Rim Only with Hub	
734-0495		Tire Tubeless 13 x 5.00	
734-0255		Air Valve	
748-0184		Bearing	

REAR WHEEL

PART NO.	COLOR CODE	DESCRIPTION	NEW PART
734-0592		Wheel Ass'y.—Comp.	
734-0594		Rim Only	
734-0294		Tire Tubeless 18 x 6.50—8	
734-0255		Air Valve	

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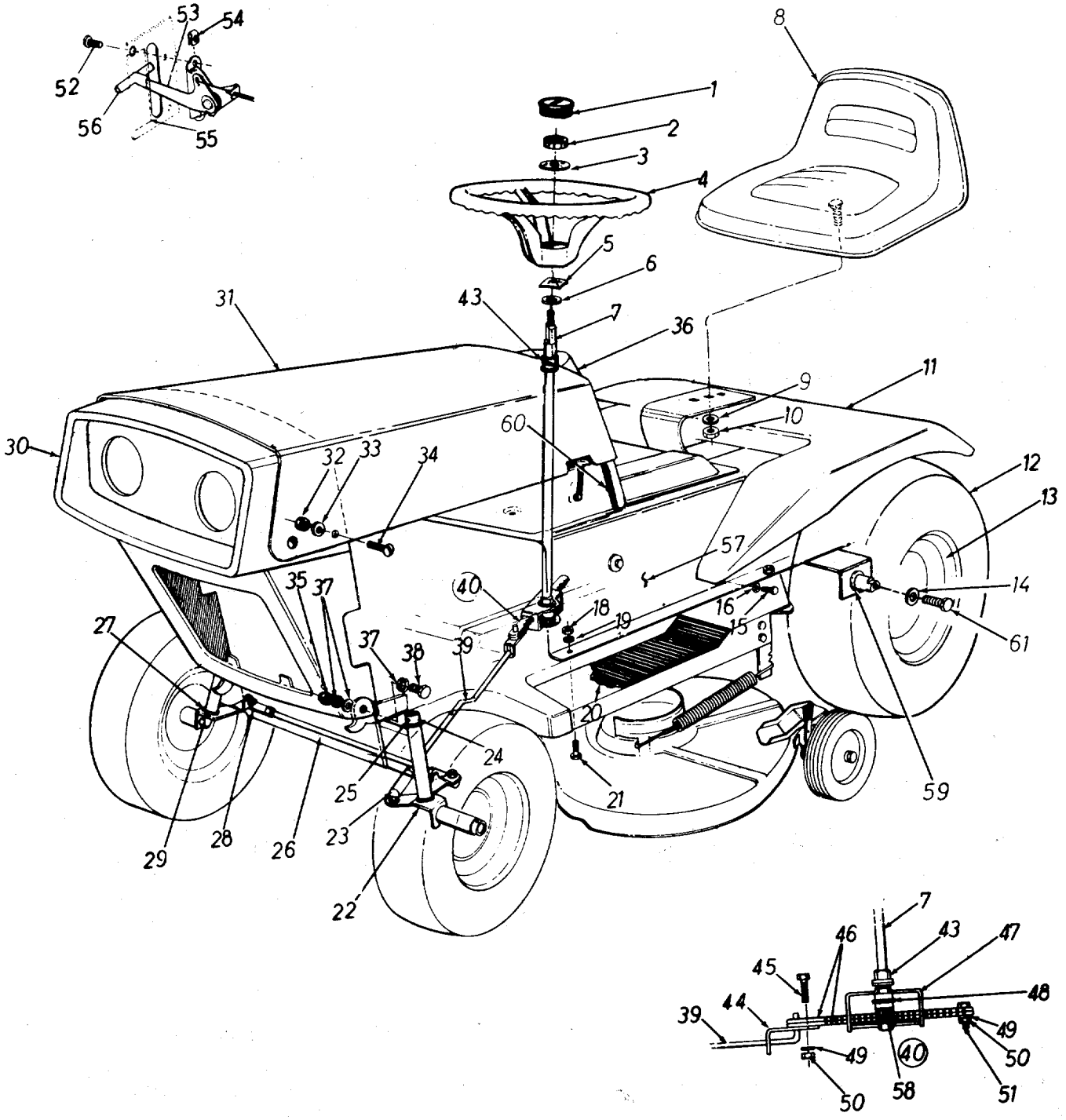


LEFT HAND VIEW

PARTS LIST FOR MODEL 136-475A

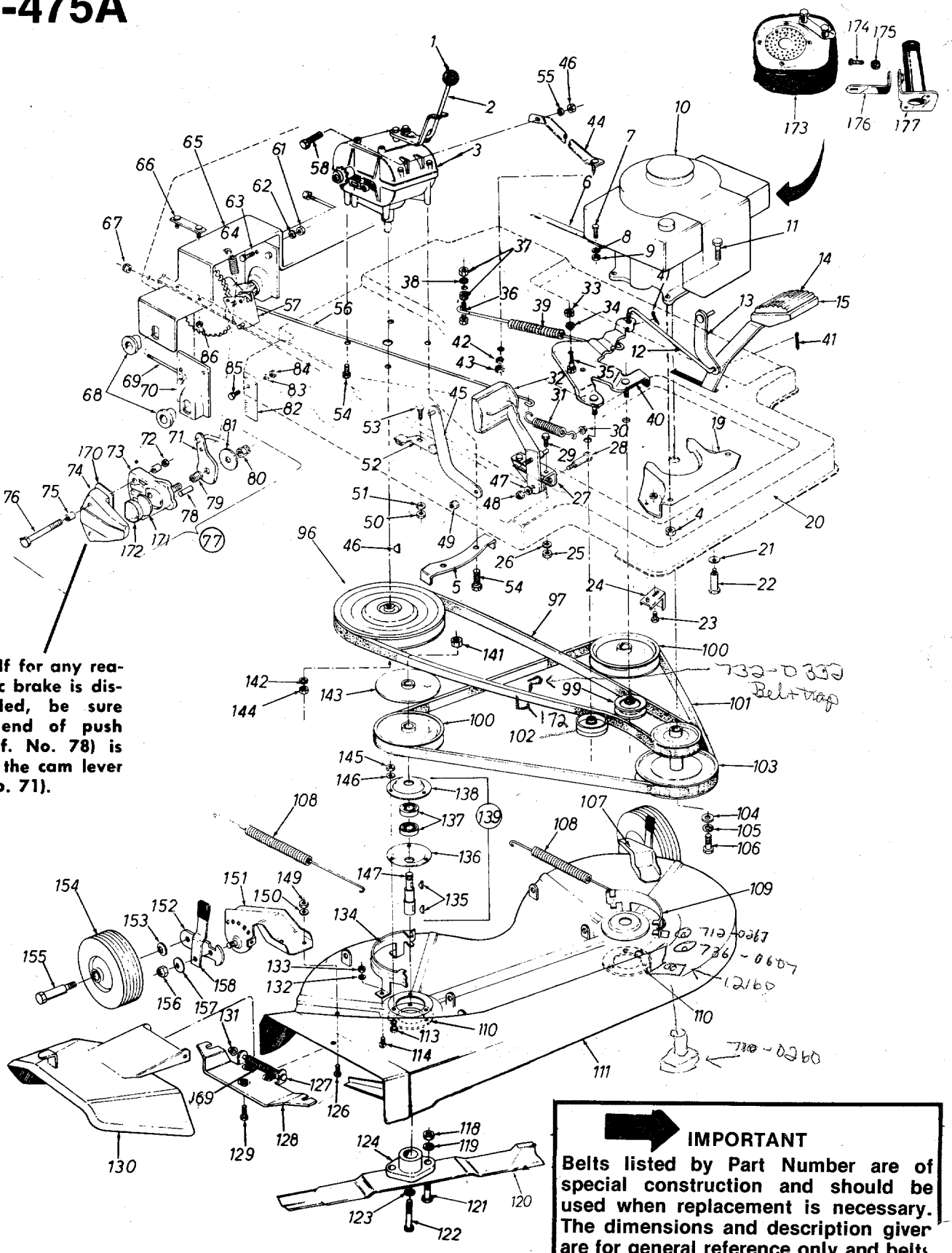
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	731-0220		Steering Wheel Cap	
2	712-0158		Hex Center Locknut 5/16-18 Thd.	
3	736-0219		Belleville Washer .400 I.D. x 1.13 O.D.	
4	731-0219		12.0 Inch Steering Wheel	
5	712-0222		Push Nut 5/8" Dia.	
6	736-0174		Wave Washer .660 I.D. x .88 O.D.	
7	738-0200		Steering Shaft	
8	757-0264		Seat Ass'y.—Comp.	N
9	736-0921		Spring Lockwasher ½" Scr.*	
10	712-0206		Hex Nut ½-13 Thd.*	
11	09087		Rear Fender	
12	734-0592		Rear Wheel Ass'y.—Comp. 18.0 x 6.50—8	
	734-0294		Rear Wheel Tire Only 18.0 x 6.50—8	
	734-0255		Air Valve—Tubeless	
13	734-0594		Rear Wheel Rim Ass'y.	
14	736-0242		Belleville Wash.	
15	710-0258		Hex Hd. Cap Scr. ¼-20 x .62" Lg.*	
16	736-0329		Spring Lockwasher ¼" Scr.*	
18	712-0267		Hex Nut 5/16-18 Thd.*	
19	736-0119		Spring Lockwasher 5/16" Scr.*	
20	723-0241		Foot Pad 15.75" Lg. x 4.0" Wide	
21	710-0259		Hex Sems Scr. 5/16-18 x .62" Lg.*	
22	09098	—378	Front Axle Ass'y.—L.H.	
23	723-0156		Ball Joint Ass'y.	
24	711-0169		Collar 5/8" I.D.	
25	710-0494		Sq. Hd. Set Scr. 5/16-18 x .38 Cup	
26	711-0613		Tie Rod	
27	748-0227		Flange Bearing 6.30 I.D.	
28	723-0156		Ball Joint Ass'y.	
29	09095	—378	Front Axle Ass'y.—R.H.	
30	719-0197		Grille—Front	
31	11836		Front Hood	
32	712-0287		Hex Nut ¼-20 Thd.*	
33	736-0329		Spring Lockwasher ¼" Scr.*	
34	710-0286		Truss Hd. Mach. Scr. ¼-20 x .50" Lg.*	
35	712-0375		Hex Center Locknut 3/8-16 Thd.	
36	11862	—378	Dash Panel Ass'y.	
37	736-0105		Belleville Washer	
38	710-0253		Hex Hd. Cap Scr. 3/8-16 x 1.00" Lg.*	
39	747-0138		Steering Rod	
40	—		Steering Ass'y. Breakdown	
43	748-0228		Hex Flange Bearing .505 I.D. Bronze	
44	12372		Steering Rod Bracket	
45	710-0412		Hex Hd. Cap Scr. ¼-28 x .75" Lg.*	
46	11048		Steering Segment	
47	11074		Steering Housing Ass'y.	
48	715-0134		Spring Pin Spirol 3/16" Dia. x 1.50" Lg.	
49	736-0329		Spring Lockwasher ¼" Scr.*	
50	712-0117		Hex Nut ¼-28 Thd. Lock*	
51	710-0412		Hex Hd. Cap Scr. ¼-28 x .75" Lg.*	
52	710-0351		Truss Hd. Mach. B-Tapp Scr. #10 x .50" Lg.	
53	746-0160		Throttle Control—Complete	
54	712-0147		Speed Nut #10-24 U-Type	
55	11862	—378	Dash Panel Ass'y.	
56	722-0111		Knob Only—Throttle Control	
57	11852	—378	Upper Frame	
58	748-0203		12 Teeth Spur Gear	
59	736-0134		Flat Washer	
60	731-0144		Vinyl Blk. Strip for Dash 12.0' Lg.	
61	710-0627		Hex Scr. with Lock 5/16"-24 x .75" Lg.	

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

(378—Saturn Blue)
When ordering parts, if color or finish is important use the appropriate color code shown above (e.g. Saturn Blue Finish—11852 (378).).

The engine is not under warranty by the mower manufacturer. If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines — Gasoline."

136-475A



NOTE: If for any reason disc brake is disassembled, be sure round end of push pin (Ref. No. 78) is toward the cam lever (Ref. No. 71).

IMPORTANT

Belts listed by Part Number are of special construction and should be used when replacement is necessary. The dimensions and description given are for general reference only and belts purchased by description and dimension generally will only provide temporary service.

PARTS LIST FOR DECK AND FRAME VIEW MODEL 136-475A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	720-0165		Knob (For Transmission Lever)	
2	747-0172		Shift Lever	
3	717-0323		3 Speed Transmission (See Breakdown on Page 23)	
4	712-0267		Hex Nut 5/16-18 Thd.*	
5	11845		Transmission Belt Guard	
6	11095		Engine Brace	
7	710-0259		Hex Sems Scr. 5/16-18 x .62" Lg.*	
8	736-0119		Spring Lockwasher 5/16" Scr.*	
9	712-0267		Hex Nut 5/16-18 Thd.*	
10	—		Engine	
11	710-0442		Hex Hd. Cap Scr. 5/16-18 x 1.50" Lg.*	
12	747-0112		Clutch Rod	
13	11057		Parking Brake—Lever Ass'y.—L.H.	
14	12379		Clutch Pedal Pad	
	12378		Brake Pedal Pad (Not Shown)	
15	310-11037		Clutch Pedal Ass'y.	
19	12654	—378	Engine Belt Guard Ass'y.	
20	11090	—378	Frame Ass'y.	
21	736-0105		Belleville Washer 3/8" Scr.	
22	738-0129		Shld. Scr. .498" Dia. x 2.00" Lg.*	
23	710-0259		Hex Sems Scr. 5/16-18 x .62" Lg.*	
24	10426	—378	Belt Keeper Ass'y.	
25	712-0267		Hex Nut 5/16-18 Thd.*	
26	736-0119		Spring Lockwasher 5/16" Scr.*	
27	11039		Pedal "U"-Bracket Ass'y.	
28	738-0213		Shld. Scr. .498" Dia. x 1.450" Lg.	
29	710-0198		Hex Sems Scr. 5/16-18 x .75" Lg.*	
30	726-0100		Push Nut 3/8" Rod	
31	732-0245		Brake Spring	
32	11036		Brake Pedal Bracket Ass'y.	
33	712-0267		Hex Nut 5/16-18 Thd.*	
34	736-0119		Spring Lockwasher 5/16" Scr.*	
35	738-0140		Shld. Scr. .437" Dia. x .180" Lg.	
36	710-0289		Hex Hd. Cap Scr. 1/4-20 x .50" Lg.*	
37	712-0287		Hex Nut 1/4-20 Thd.*	
38	736-0329		Spring Lockwasher 1/4" Scr.*	
39	732-0191		Spring .75 O.D. x 11.0" Lg.	
40	12448		Idler Bracket Ass'y.	
41	714-0507		Cotter Pin 3/32" Dia. x .75" Lg.	
42	736-0119		Spring Lockwasher 5/16" Scr.*	
43	712-0267		Hex Nut 5/16-18 Thd.*	
44	12732	—378	Transmission Support Brkt. Ass'y.	
45	11056	—378	Parking Brake—Lever Ass'y. R.H.	
46	712-0138		Hex Nut 1/4-28 Thd.*	
47	736-0169		Spring Lockwasher 3/8" Scr.*	
48	712-0798		Hex Nut 3/8-16 Thd.*	
49	712-0429		Hex Inserted Locknut 5/16-18 Thd.	
50	712-0287		Hex Nut 1/4-20 Thd.*	
51	736-0329		Spring Lockwasher 1/4" Scr.*	
52	761-0147		Blade Brake Ass'y. .88 High	
53	710-0134		Carriage Bolt 1/4-20 x .62" Lg.*	
54	710-0198		Hex Sems Scr. 5/16-18 x .75" Lg.*	
55	736-0329		Spring Lockwasher 1/4" Scr.*	
56	747-0106		Brake Rod .25" Dia. x 23.50" Lg.	
57	10398		Disc Brake Bracket Ass'y.	
58	710-0412		Hex Hd. Cap Scr. 1/4-28 x .75" Lg.*	
61	712-0267		Hex Nut 5/16-18 Thd.*	
62	736-0119		Spring Lockwasher 5/16" Scr.*	
63	710-0198		Hex Sems Scr. 5/16-18 x .75" Lg.*	
64	732-0157		Spring .38 O.D. x 3.25	
65	10362		Rear Axle Bracket Ass'y.	
66	10360		Axle Bolt Plate Ass'y.	
67	712-0429		Hex Inserted Locknut 5/16-18 Thd.	
68	741-0199		Plastic Bearing with Flats .753 I.D.	N
69	710-0437		Chain Adjusting Link 5/16-18 x 4.38" Lg.	
70	10364		Rear Axle Plate	
71	18-2770-0000		Cam Lever	
72	712-0375		Hex Center Locknut 3/8-16 Thd.	
73	12-1041-0000		Casting, Carrier Side	
74	12-1039-0000		Casting, Cam Side	
75	761-0138		Spacer for Disc Brake 5/8 O.D. x 5/8" Lg.	
76	710-0316		Hex Hd. Cap Scr. 3/8-16 x 3.50" Lg.	
77	761-0137		Disc Brake Ass'y.—Comp.	
78	05-1033-0000		Push Pin	
79	06-1029-0000		Compression Spring	
80	02-1011-0000		Locknut	
81	03-1030-0000		Thrust Washer 5/16" I.D.	
82	10410		Spring Bracket	
83	736-0329		Spring Lockwasher 1/4" Scr.*	
84	712-0287		Hex Nut 1/4-20 Thd.*	
85	710-0258		Hex Hd. Cap Scr. 1/4-20 x .62" Lg.*	
86	712-0429		Hex Inserted Locknut 5/16-18 Thd.	
96	756-0174		Transmission Split Pulley .50 I.D.	
97	754-0191		"V"-Belt 1/2 x 65" Lg. (Transmission)	
99	756-0116		"V"-Belt Idler 3.06" O.D.	
100	756-0251		Deck Pulley 4.75" O.D.	

PARTS LIST (CONTINUED) MODEL 136-475A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
101	754-0151		"V"-Belt 21/32 x 67" Lg. (Blade Drive Belt)	
102	756-0217		"P"-Flat Idler 2.75" O.D.	
103	756-0253		Two Step Engine Pulley	
104	736-0235		Flat Washer .406 I.D. x 1.25 O.D.	
105	736-0169		Spring Lockwasher 3/8" Scr.*	
106	710-0152		Hex Hd. Cap Scr. 3/8-24 x 1.00" Lg.*	
107	11237		Wheel Bracket Ass'y. L.H. (Deck)	
108	732-0307		Spring .75 O.D. x 11.0" Lg. (Deck)	
109	12672		Belt Guard—L.H. (Deck)	
110	09164		Deck Reinforcement Plate	
111	12674		34 Inch Deck Assembly	
113	710-0322		Hex Sems Scr. 5/16-18 x 1.00" Lg.*	
114	710-0289		Hex Hd. Cap Scr. ¼-20 x .50" Lg.*	
115	11857		Muffler Bracket	
116	751-0124		Muffler Extension Ass'y.	
117	710-0289		Hex Hd. Cap Scr. ¼-20 x .50" Lg.*	
118	712-0123		Hex Nut 5/16-24 Thd.*	
119	736-0119		Spring Lockwasher 5/16" Scr.*	
120	742-0120		17" Blade	
121	710-0117		Hex Hd. Cap Scr. 5/16-24 x 1.00" Lg. Heat Treated	
122	710-0459		Hex Hd. Cap Scr. 3/8-24 x 1.50" Lg. Heat Treated	
123	736-0217		Spring Lockwasher 3/8" Scr. Heavy Duty	
124	10769		Blade Adapter Kit	
125	11633		Chute Cover Ass'y.—Comp. (Includes Ref. No's. 127, 128, 129, 130 & 131)	
126	710-0289		Hex Hd. Cap Scr. ¼-20 x .50" Lg.*	
127	711-0571		Pivot Pin	
128	11399		Adapter Plate Ass'y.	
129	710-0195		Hex Hd. Cap Scr. ¼-28 x .62" Lg.*	
130	11574		Chute Cover Ass'y.	
131	726-0106		Push Nut ¼" Rod	
132	736-0329		Spring Lockwasher ¼" Scr.*	
133	712-0287		Hex Nut ¼-20 Thd.*	
134	12673		Belt Guard—R.H. (Deck)	
135	714-0365		#6 Hi-Pro Key 5/32 x 5/8" Dia.	
136	08253		Bearing Housing	
137	741-0919		Ball Bearing .787 I.D. x 1.85 O.D.	
138	08253		Bearing Housing	
139	09321		Blade Spindle Ass'y.—Comp.	
141	712-0242		Hex Jam Nut 5/8-11 Thd.	
142	736-0921		Spring Lockwasher ½" Scr.*	
143	09322		Blade Brake Disc	
144	712-0922		Hex Jam Nut ½-20 Thd.	
145	712-0287		Hex Nut ¼-20 Thd.*	
146	736-0329		Spring Lockwasher ¼" Scr.*	
147	711-0255		Blade Spindle	
148	—		Lo-Tone Muffler Ass'y. (Order from Briggs & Stratton)	
149	712-0287		Hex Nut ¼-20 Thd.*	
150	736-0329		Spring Lockwasher ¼" Scr.*	
151	11236		Wheel Bracket Ass'y.—R.H. (Deck)	
152	10937		Wheel Pivot Bar	
153	736-0105		Belleville Washer	
154	734-0295		Wheel Ass'y. 5.0" Dia. (Deck)	
155	738-0119		Shld. Scr. .625" Dia. x 1.75" Lg.	
156	712-0116		Hex Inserted Locknut 3/8-24 Thd.	
157	736-0105		Belleville Washer	
158	10949		Spring Lever Ass'y. with Knob	
167	09963		Hitch Bracket (Not Shown)	
168	731-0144		Vinyl Black Strip for Dash 12.0" Lg. (Not Shown)	
169	713-0163		#420 Chain ½" Pitch x 79 Links	
170	713-0154		#420 Master Link	
171	714-0129		#4 Hi-Pro Key 3/32 x 5/8" Dia. Hdn.	
172	732-332		Belt Cap	

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

(378—Saturn Blue)
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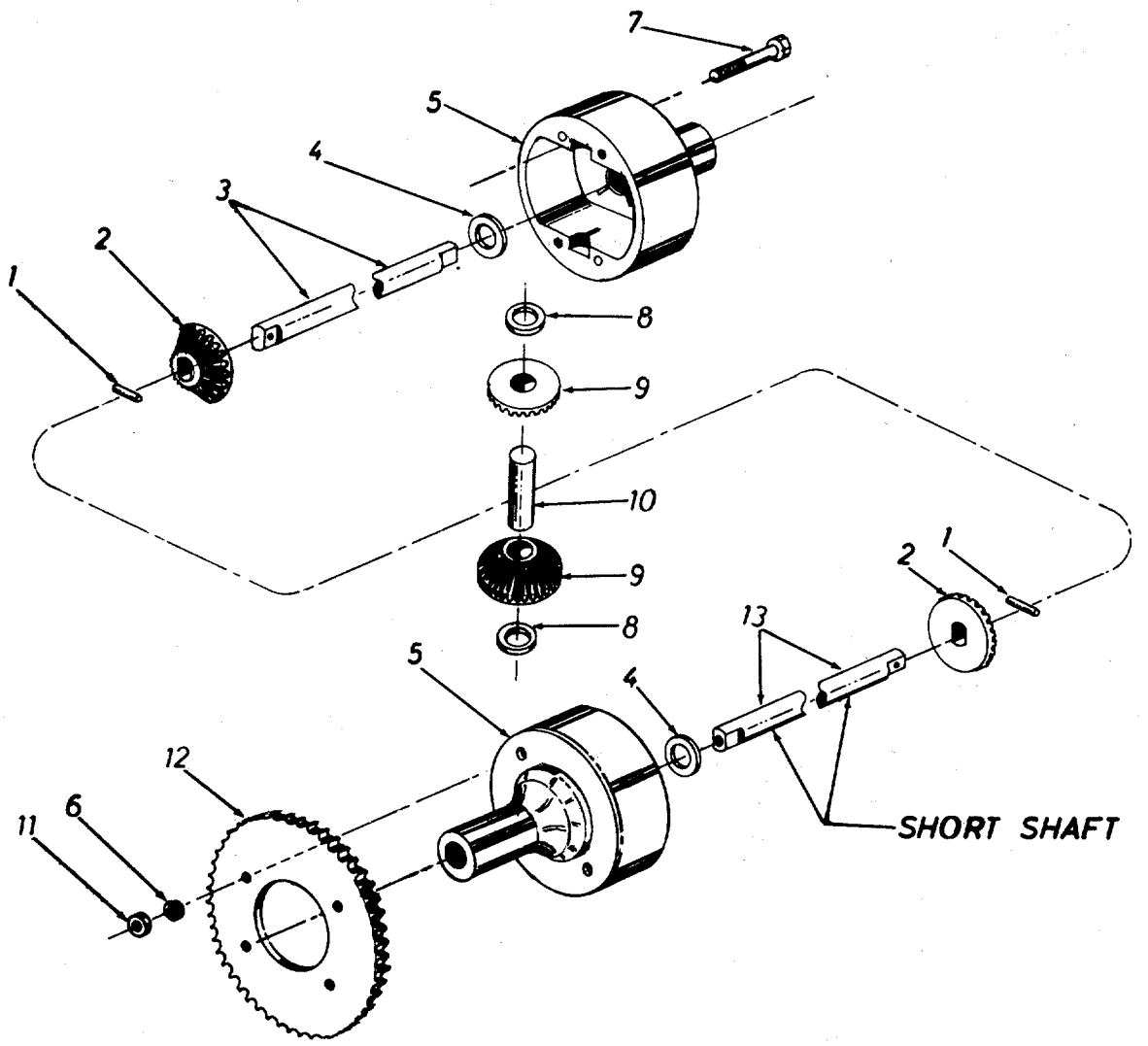
The engine is not under warranty by the mower manufacturer. If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines — Gasoline."



PARTS LIST FOR DIFFERENTIAL ASSEMBLY 717-0330

REF. NO.	PART NO.	Qty. Req'd.	DESCRIPTION	NEW PART
1	715-0247	2	Spring Pin Spir. 3/16" Dia. x 1.00	
2	748-0185	2	Gear—Double "D" Hole	
3	738-0249	1	Shaft—Long ~~16.89~~" Lg. 9.65	
4	736-0188	2	Fl-Wash. .160 I.D. x 1.49 O.D. x .06	
5	717-0341	2	Housing Half	N
6	736-0119	4	L-Wash. 5/16" Scr.*	
7	710-0526	2	Hex Scr. 5/16-24 x 4.0" Lg.	
8	736-0187	2	Fl-Wash. .640 I.D. x 1.24 O.D. x .06	
9	748-0158	2	Gear—Round Hole	
10	711-0276	1	Drive Pin	
11	712-0237	2	Hex Cent. L-Nut 5/16-24 Thd.	
12	09133	1	Sprocket—60 Tooth	
13	738-0250	1	Shaft—Short ~~9.53" Lg.~~ 17.01	
	737-0120	2	Grease—Sunaplex 990 EP—oz.	

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

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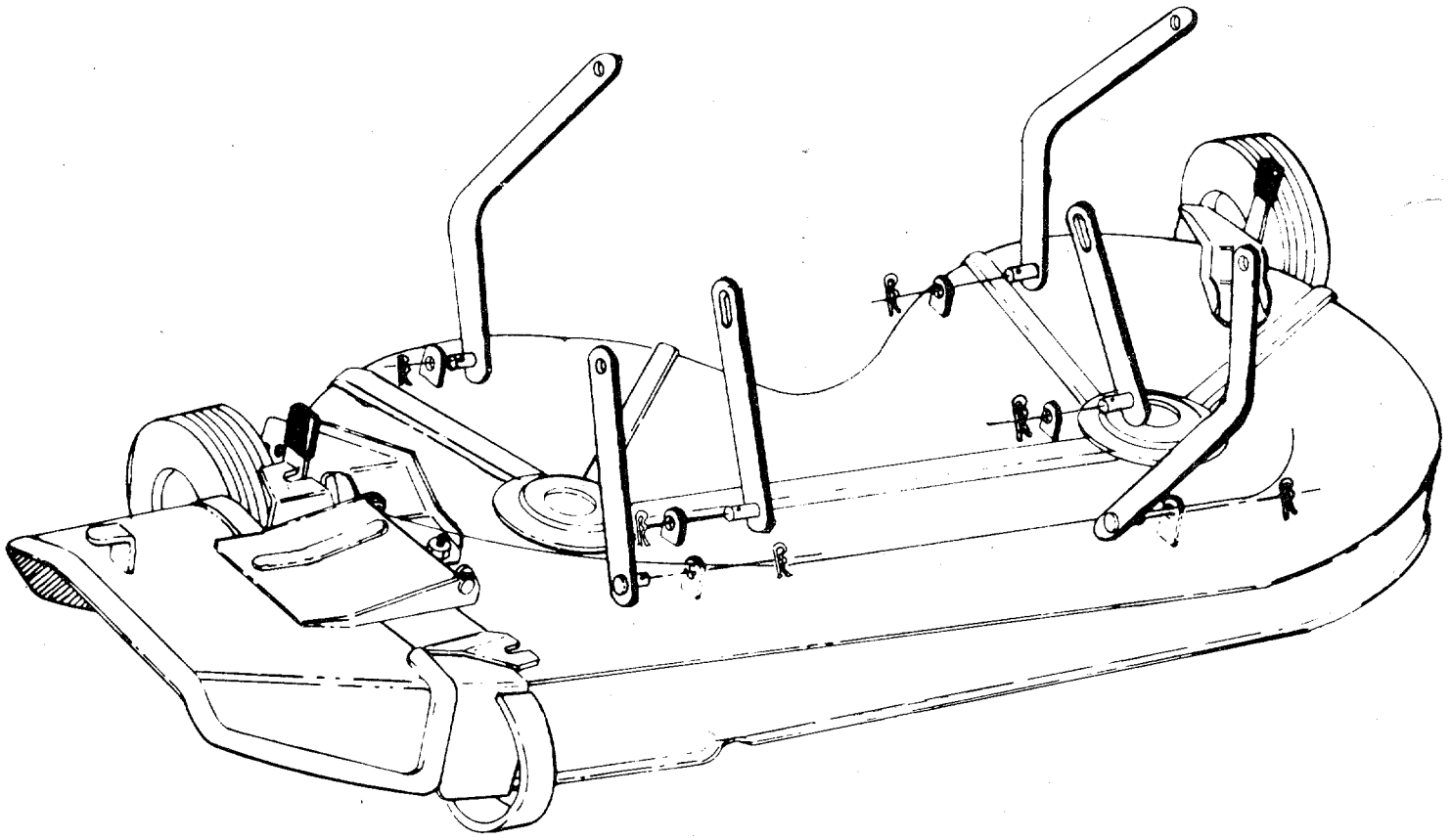
DECK LINKAGE

NOTE

Refer to illustration below for proper deck link hook-up. If the deck is removed for any reason use the illustration below for correct assembly.



PARTS INFORMATION

POWER EQUIPMENT PARTS AND SERVICE

Parts and service for all MTD manufactured power equipment are available through the authorized service firms listed below. All orders should specify the model number of your unit, parts numbers, description of parts and the quantity of each part required.

ALABAMA	**BIRMINGHAM**		
Auto Electric & Carburetor Co.	2625 4th Ave. S.		35233
ARKANSAS	**NORTH LITTLE ROCK**		
Sutton's Lawn Mower Shop	Rt. 4, Box 368		72117
	FORT SMITH		
Mity Mite Motors, Inc.	2515 Towson Ave.		72901
CALIFORNIA	**SAN BERNARDINO**		
Lawn Mower Supply Co.	25608 E. Baseline		92410
	SAN FRANCISCO		
J.W. Jewett Co.	981 Folsom St.		94107
	SACRAMENTO		
Luttig & Severson	2030 28th St.		95818
COLORADO	**DENVER**		
South Denver Lawn Equip.	527 West Evans		80223
CONNECTICUT	**SUFFIELD**		
The Jones & Ramsey Co.	850 Thompsonville Rd.		06078
FLORIDA	**JACKSONVILLE**		
Radco Distributors	2403 Market St.		32206
	CORAL GABLES		
Moz-All of Florida, Inc.	365 Greco Ave.		33146
GEORGIA	**EAST POINT**		
East Point Cycle & Key	2834 Church St.		30344
ILLINOIS	**LYONS**		
Keen Edge Co.	8615 Ogden Ave.		60534
INDIANA	**ELKHART**		
Parts & Sales Inc.	2101 Industrial Pkwy.		46514
	CORYDON		
Brown Equip. Dist., Inc.	110 Beech St.		47112
IOWA	**DUBUQUE**		
Power Lawn & Garden Equip.	2551 J.F. Kennedy		52001
KANSAS	**WICHITA**		
Hixon, Inc.	3030 Mascot		67204
LOUISIANA	**NEW ORLEANS**		
Suhren Engine Co.	8330 Earhart Blvd.		70118
MARYLAND	**TAKOMA PARK**		
Center Supply Co.	6867 New Hampshire Ave.		20012
MASSACHUSETTS	**SPRINGFIELD**		
Morton B. Collins Co.	300 Birnie Ave.		01107
MICHIGAN	**MOUNT CLEMENS**		
Power Equipment Dist.	36463 South Gratiot		48043
	LANSING		
Lorenz Service Co.	2500 S. Pennsylvania		48900
MINNESOTA	**MINNETONKA**		
Hance Distributing Inc.	11212 Wayzata Blvd.		55343
MISSISSIPPI	**BILOXI**		
Biloxi Sales & Service, Inc.	506 Caillavet St.		39533
MISSOURI	**KANSAS CITY**		
Automotive Equip. Service	3117 Holmes St.		64109
	ST. LOUIS		
Henzler, Inc.	2015 Lemay Ferry Rd.		63125
NEBRASKA	**OMAHA**		
R.P.W., Inc.	7402 "L" St.		68127

BRIGGS & STRATTON, TECUMSEH AND PEERLESS PARTS AND SERVICE

Briggs & Stratton, Tecumseh and Peerless parts and service should be handled by your nearest authorized engine service firm. Check the yellow pages of your telephone directory under the listing *Engines — Gasoline*, Briggs & Stratton or Tecumseh Lauson —

NEW YORK	**CARTHAGE**		
Gamble Dist., Inc.	West End Ave.		13619
	SYRACUSE		
Kimber's, Inc.	115 N. Geddes St.		13204
	ROCHESTER		
Henry W. O'Neil & Associates	410 N. Goodman St.		14609
NORTH CAROLINA	**GREENSBORO**		
Dixie Sales Company	327 Battleground Ave.		27402
	GOLDSBORO		
Smith Hardware Co.	515 N. George St.		27530
OHIO	**WADSWORTH**		
National Central	687 Seville Rd.		44281
	CLEVELAND		
Bleckrie, Inc.	7900 Lorain Ave.		44102
	CARROL		
Stebe's Mid-State Mower Supply	Box 366		43112
	WILLARD		
Sunshine Wholesale Tire Outlet	Route 224		44890
	MANSFIELD		
McClure Lawn & Garden Supply	1114 Lexington Ave.		44903
OKLAHOMA	**MUSKOGEE**		
Victory Motors, Inc.	605 S. Cherokee		74401
	ADA		
Ada Auto Supply	301 E. 12th St.		74820
OREGON	**PORTLAND**		
Kenton Supply Co.	8216 N. Denver Ave.		97217
PENNSYLVANIA	**LANCASTER**		
Raub Supply Co.	James & Mulberry Sts.		17604
	PITTSBURGH		
Bluemont Co.	11125 Frankstown Rd.		1523
TENNESSEE	**KNOXVILLE**		
Master Repair Service	2423 Broadway, N.E.		37917
	MEMPHIS		
Memphis Cycle & Supply Co.	421 Monroe Ave.		38103
American Sales & Service, Inc.	1922 Lynnbrook		38117
TEXAS	**DALLAS**		
Marr Brothers, Inc.	423 E. Jefferson		75203
	HOUSTON		
Bullard Supply Co.	2409 Commerce St.		77003
	SAN ANTONIO		
Catto & Putty, Inc.	P.O. Box 2408		78206
	FORT WORTH		
Woodson Sales Corp.	1702 N. Sylvania		76111
UTAH	**SALT LAKE CITY**		
A-1 Engine & Mower Co.	437 E. 9th St.		84111
VERMONT	**BURLINGTON**		
Vermont Appliance Co.	44 Lakeside Ave.		05401
VIRGINIA	**RICHMOND**		
RBI Corp.	963 Myers St.		23260
WASHINGTON	**SEATTLE**		
Bailey's Rebuild, Inc.	1325 E. Madison St.		98102
WEST VIRGINIA	**CHARLESTON**		
Young's, Inc.	233 Virginia St., E.		25301
WISCONSIN	**APPLETON**		
Automotive Supply Co.	123 S. Linwood Ave.		54911

WARRANTY PARTS AND SERVICE POLICY

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture, It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility for conditions over which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsibility.

CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES

1. **Replacement of Missing Parts on new equipment.**
2. **Replacement of Defective Parts within the warranty period.**
3. **Repair of Defects within the warranty period.**

All claims MUST be substantiated with the following information:

1. **Model Number of unit involved.**
2. **Date unit was purchased or first put into service.**
3. **Date of failure.**
4. **Nature of failure.**